



Armed Forces College of Medicine

AFCM

**Genitourinary Module
Anatomy Department
Practical Guidelines
(Study Guide)
2021**

Genitourinary Practical **Guidelines**

- **Endocrine glands**
- **Bony Pelvis**
- **The Sacrum**
- **The Hip Bone**

- **The Urinary System**

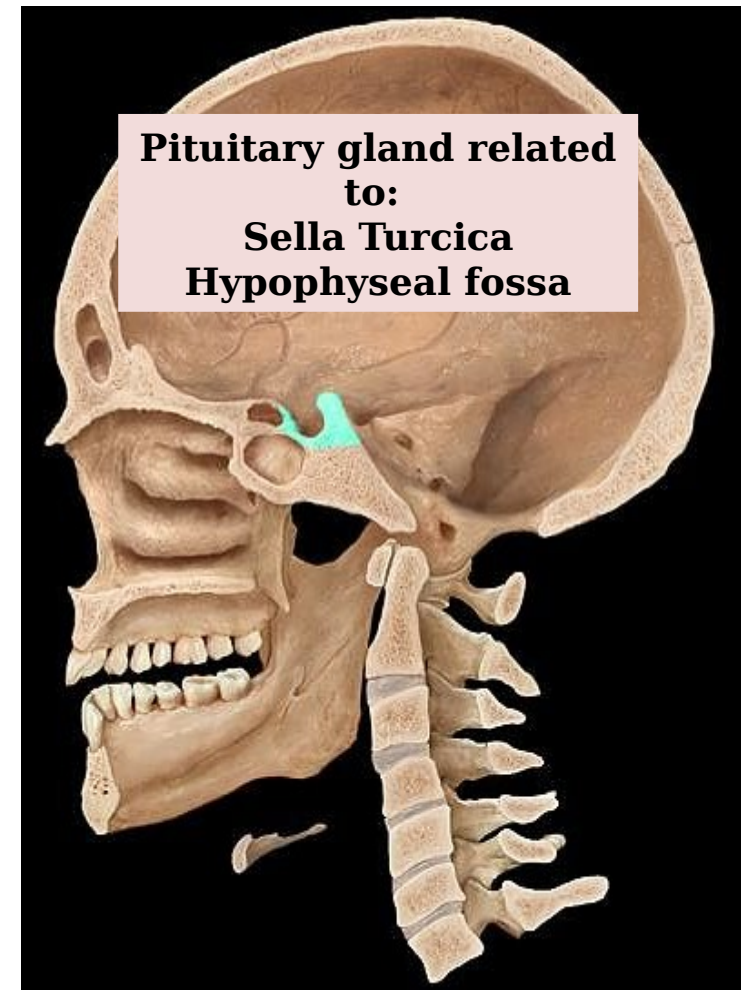
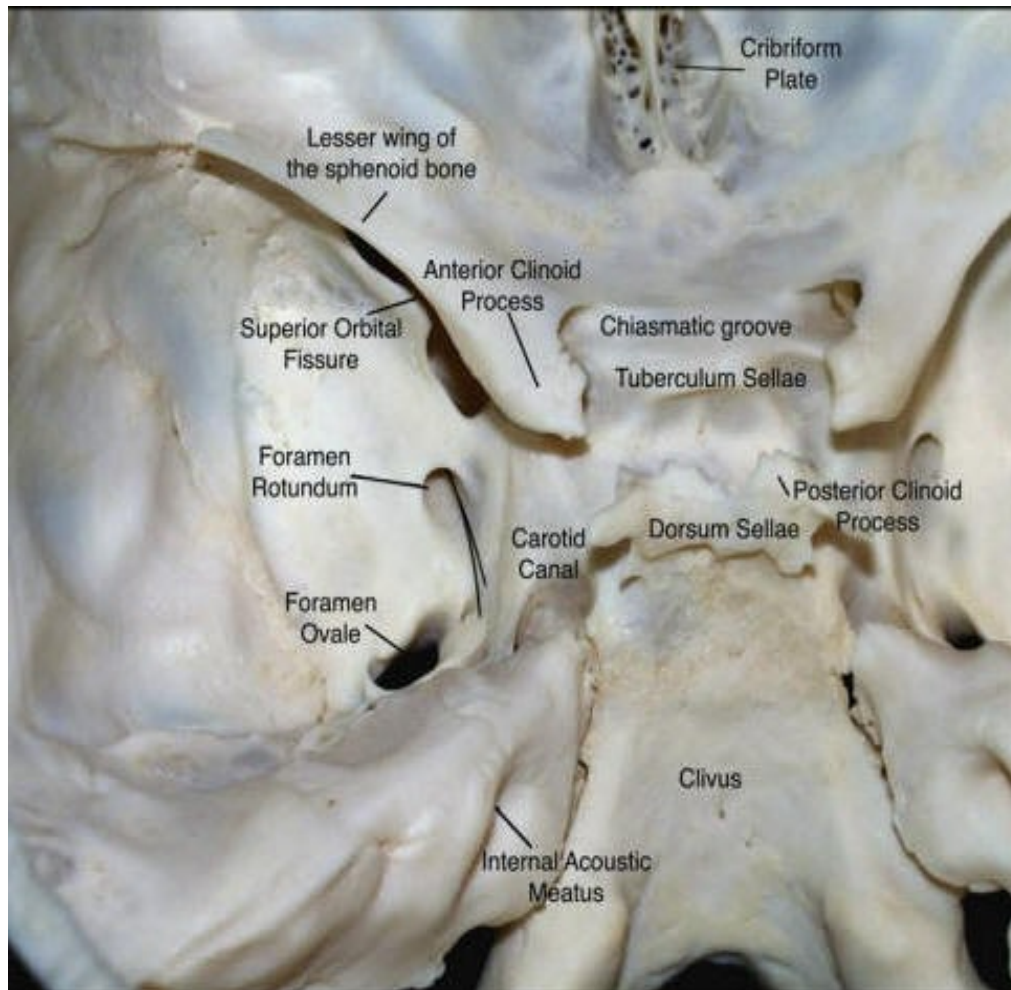
- **The Pelvic muscles**
- **The Pelvic vessels and nerves**

- **The Male Pelvis**
- **The Female Pelvis**

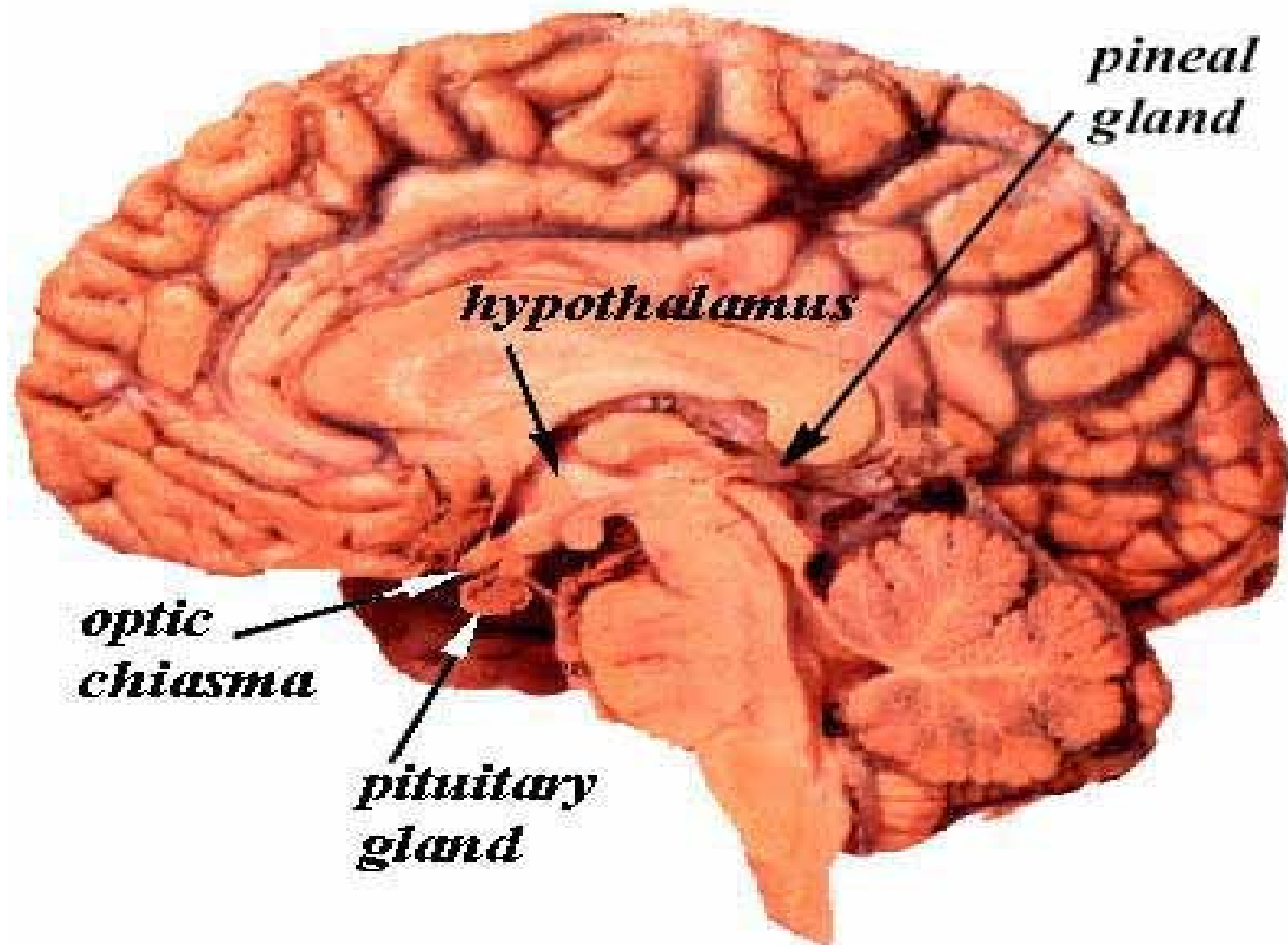
- **Genitourinary Congenital Anomalies**
- **Genitourinary Imaging**

Endocrine Glands

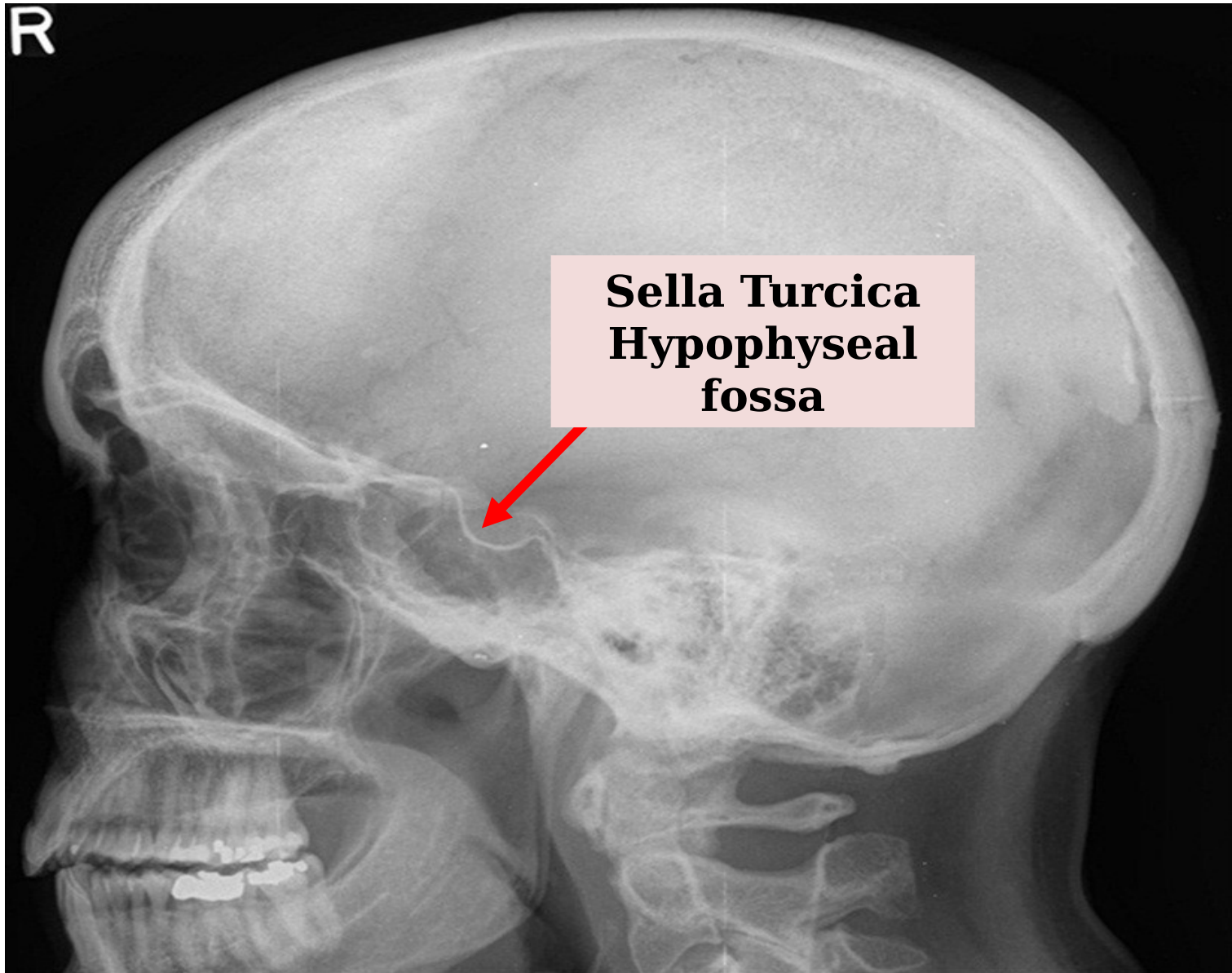
Pituitary Gland



Pituitary Gland

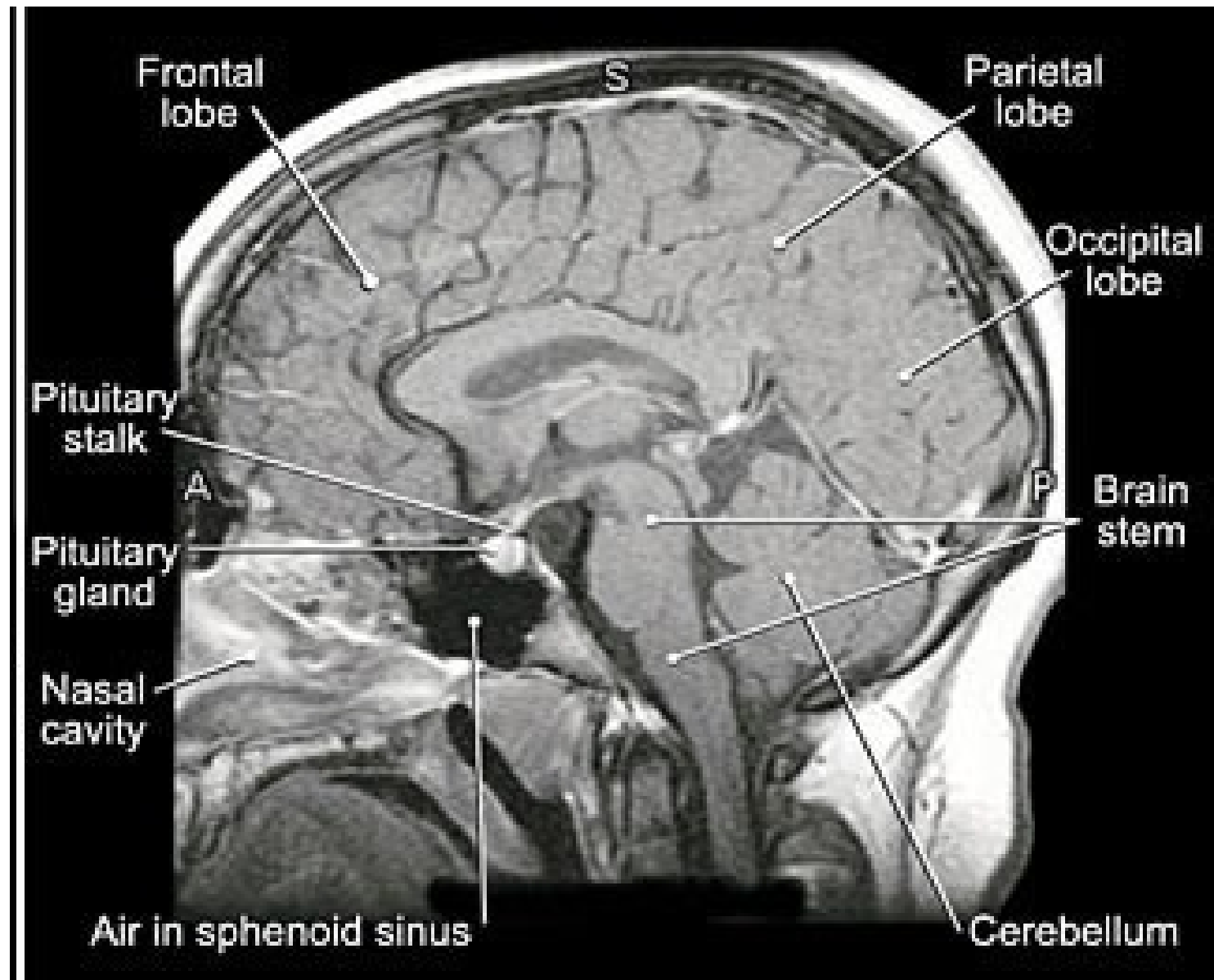


Pituitary gland

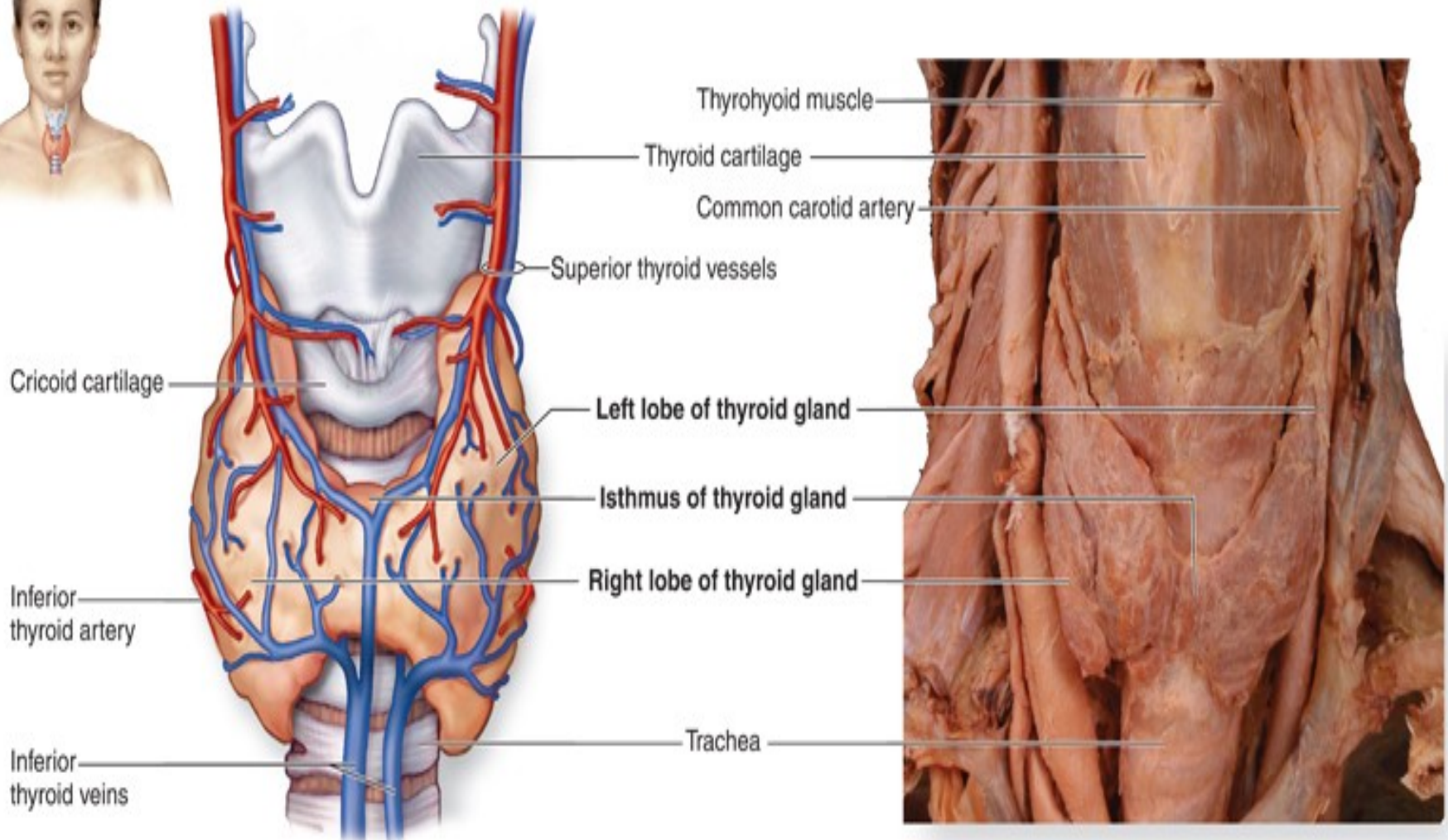


**Sella Turcica
Hypophyseal
fossa**

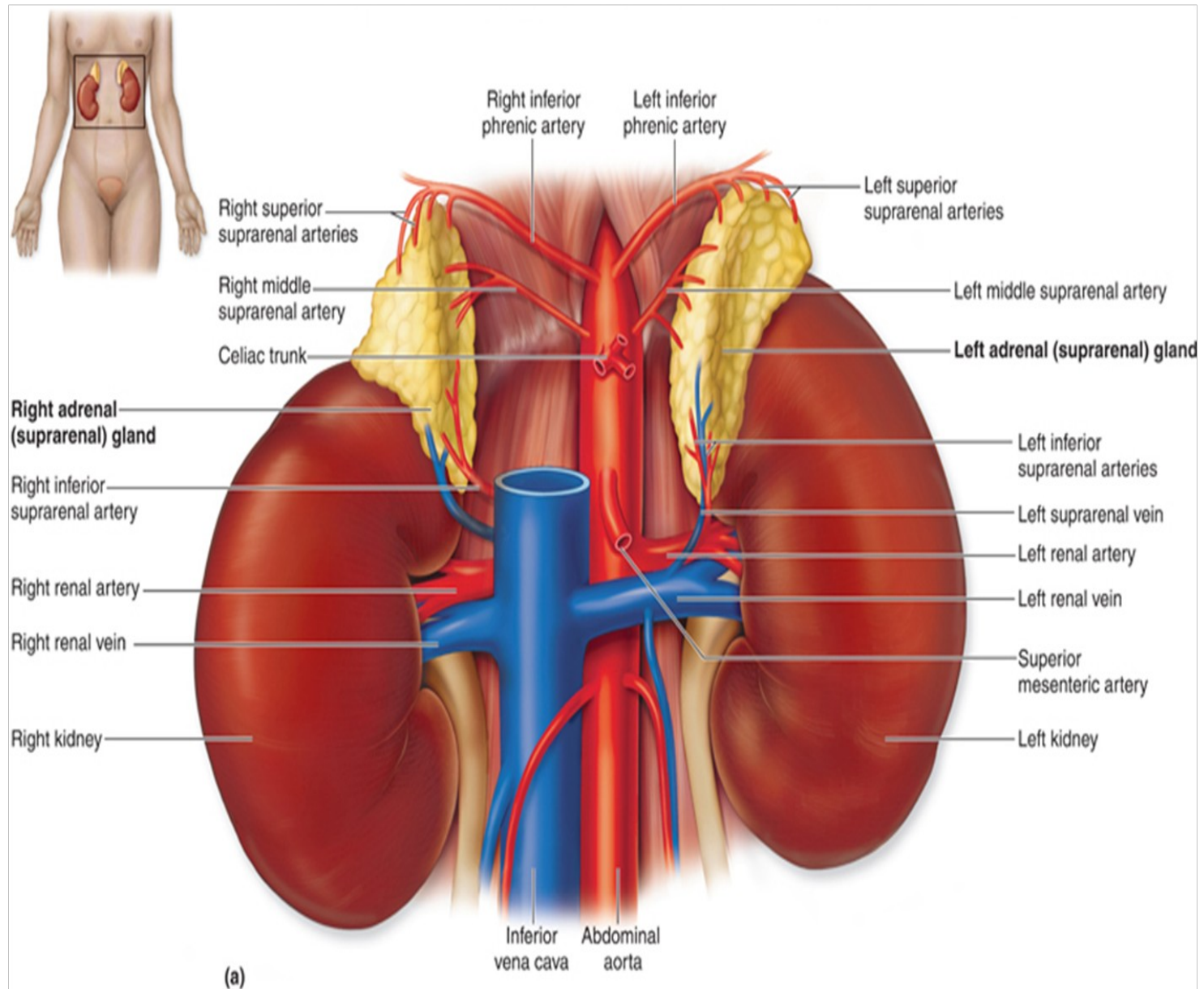
Pituitary gland



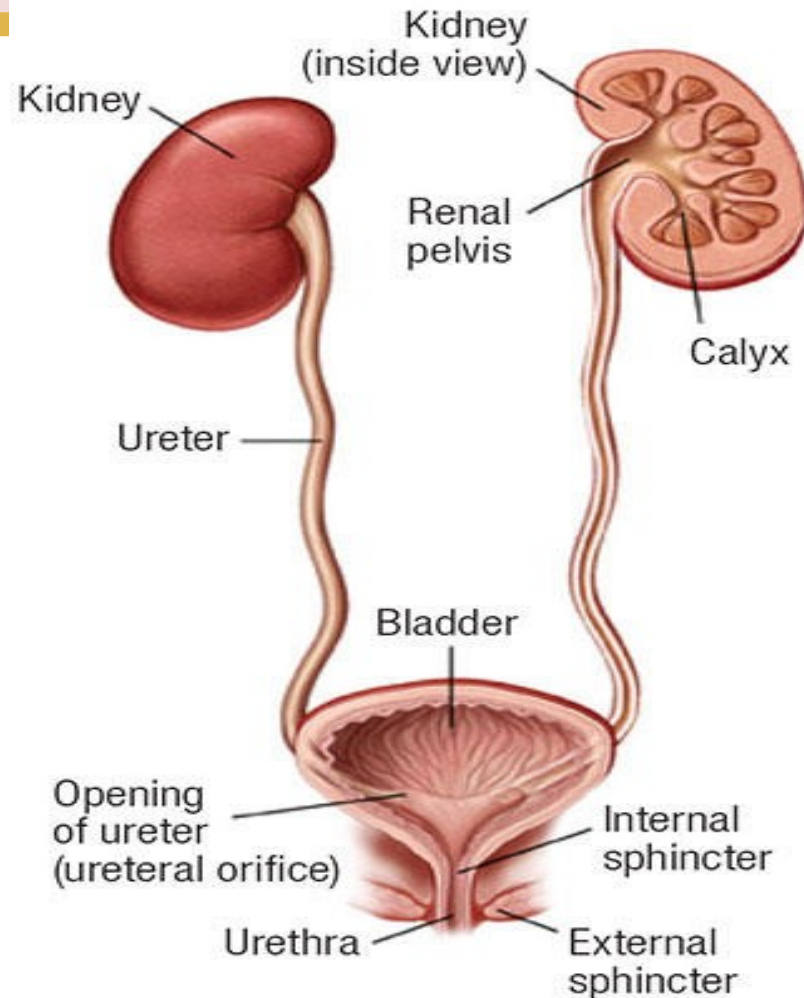
Thyroid Gland



Supra renal glands

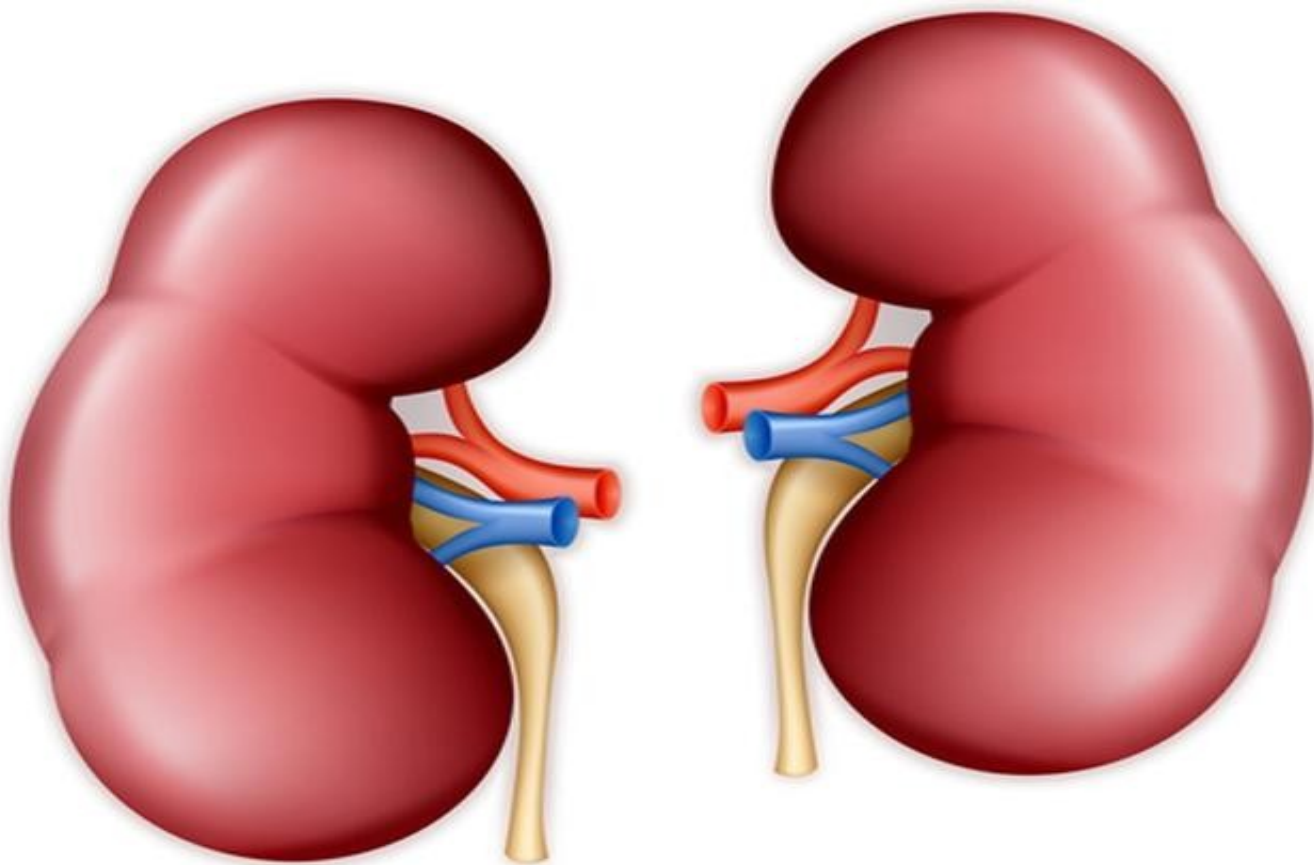


The Urinary System



Arrangement of structures in the hilum

- a. Anterior : **Renal Vein.**
- b. Intermediate: **Renal Artery**
- c. Posterior: **Renal pelvis** (pelvis of the ureter).



Identify side of kidney:

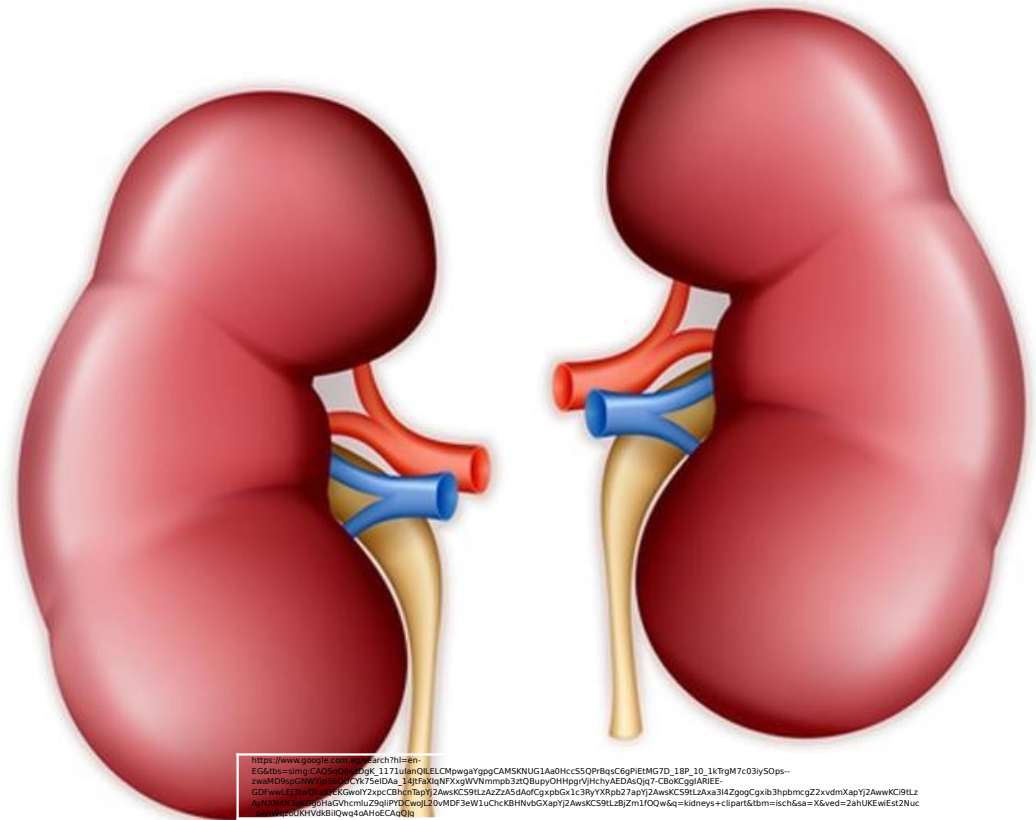
1- Renal pelvis medial

2- Arrangement of structures in renal pelvis:

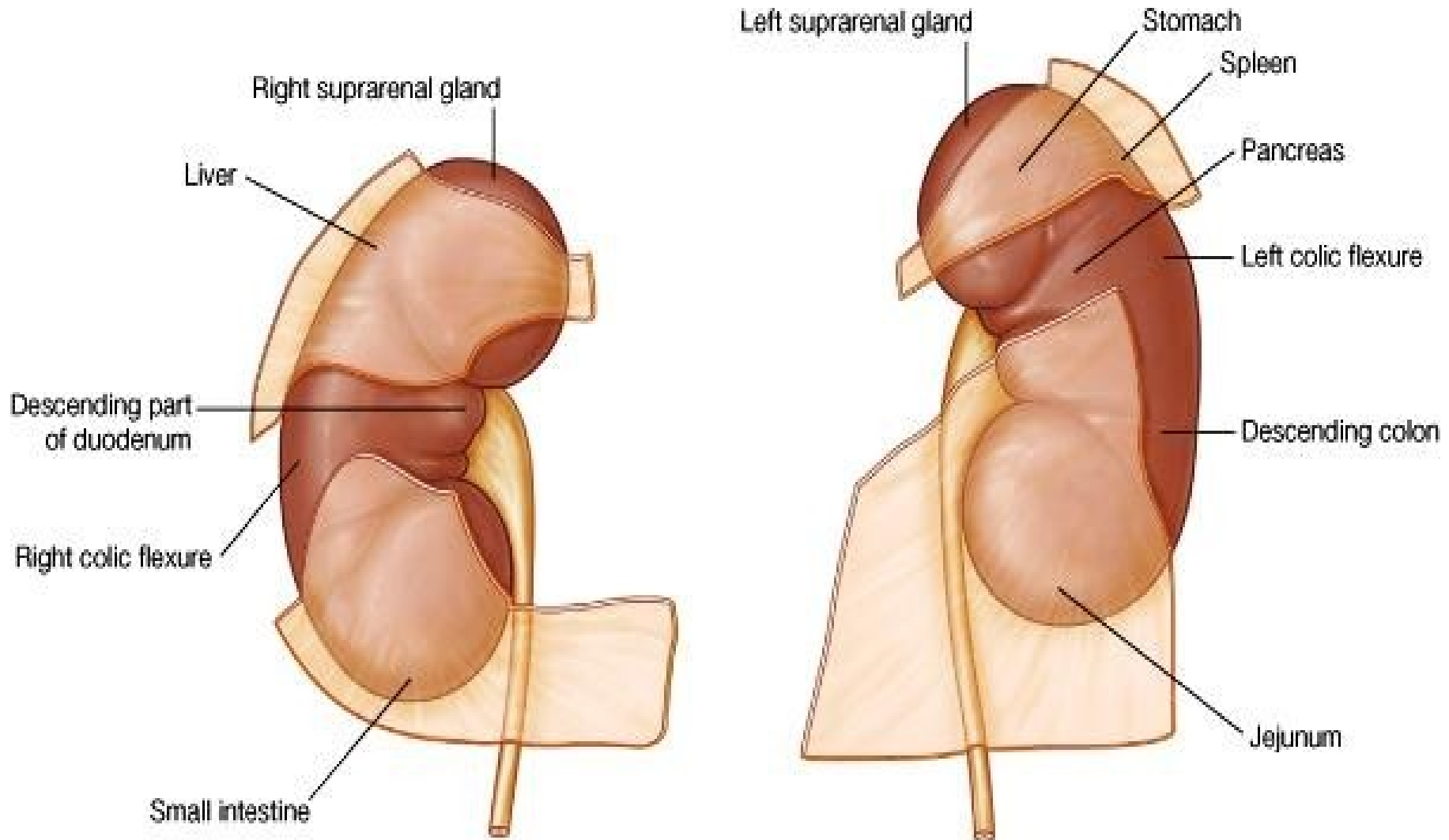
(From anterior to post; Vein, Artery,

Ureter)

3- Ureter directed inferiorly



Anterior relations of the kidneys



3 S + 2 Right



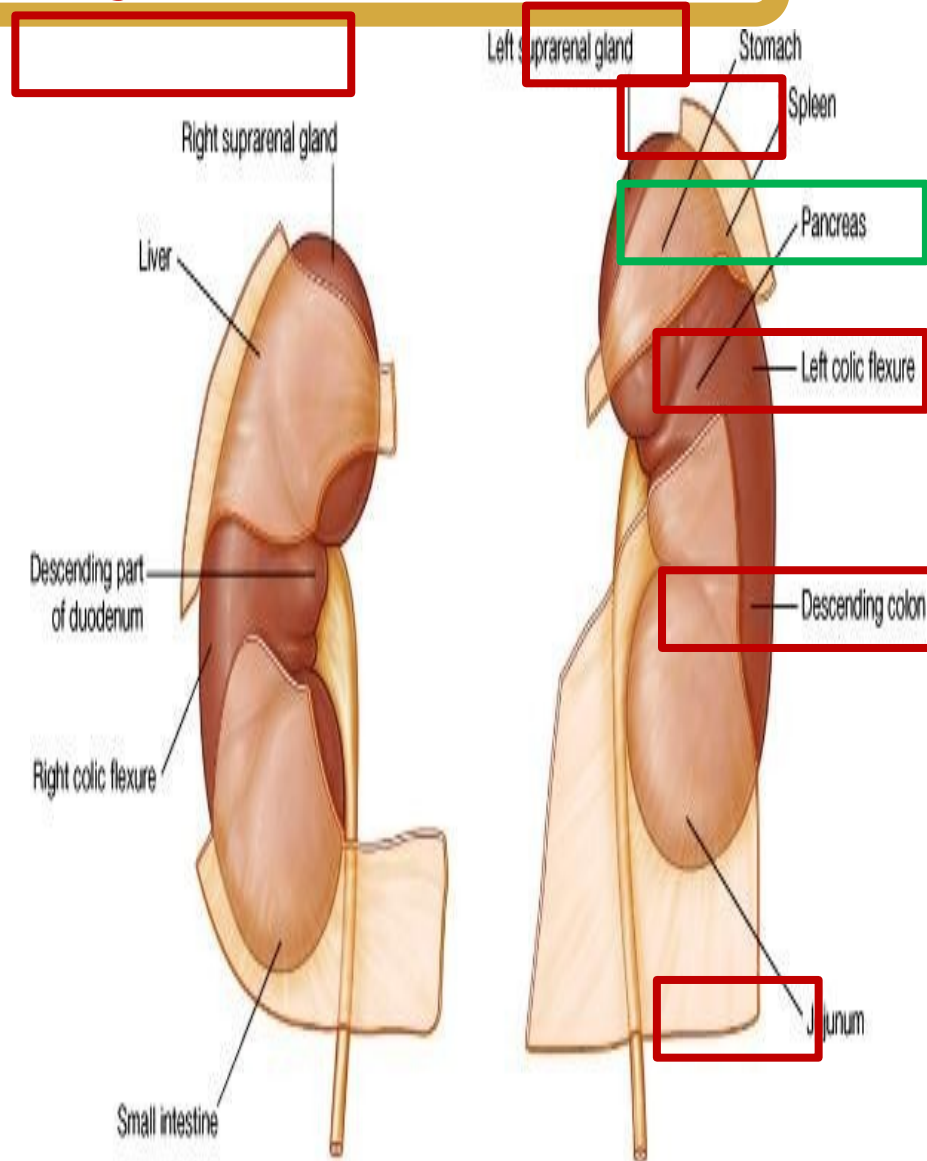
3- Coils of Small intestine and ascending branch of right colic artery

3. Right lobe of the liver

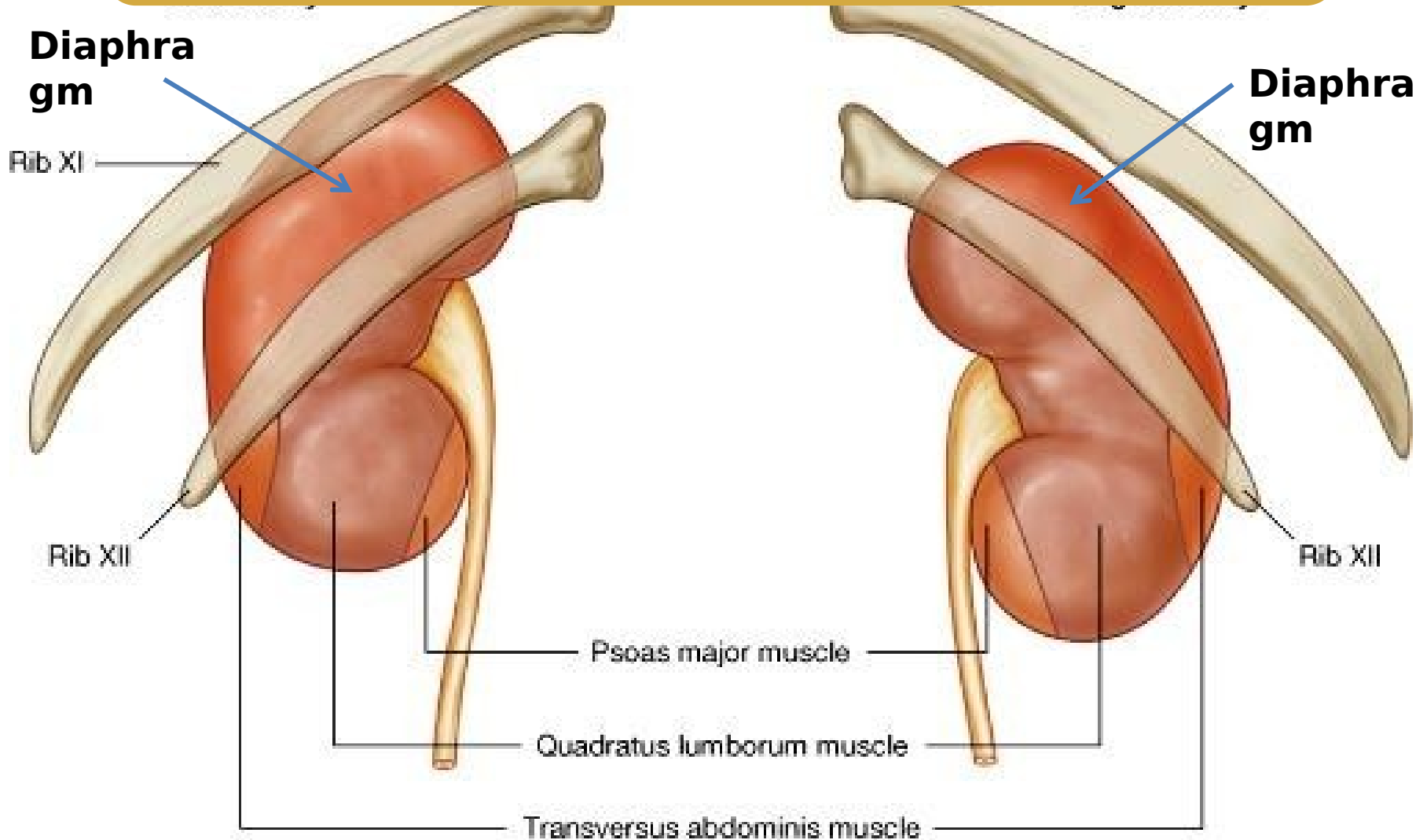
4. Right colic flexure

Anterior relations of the left kidney

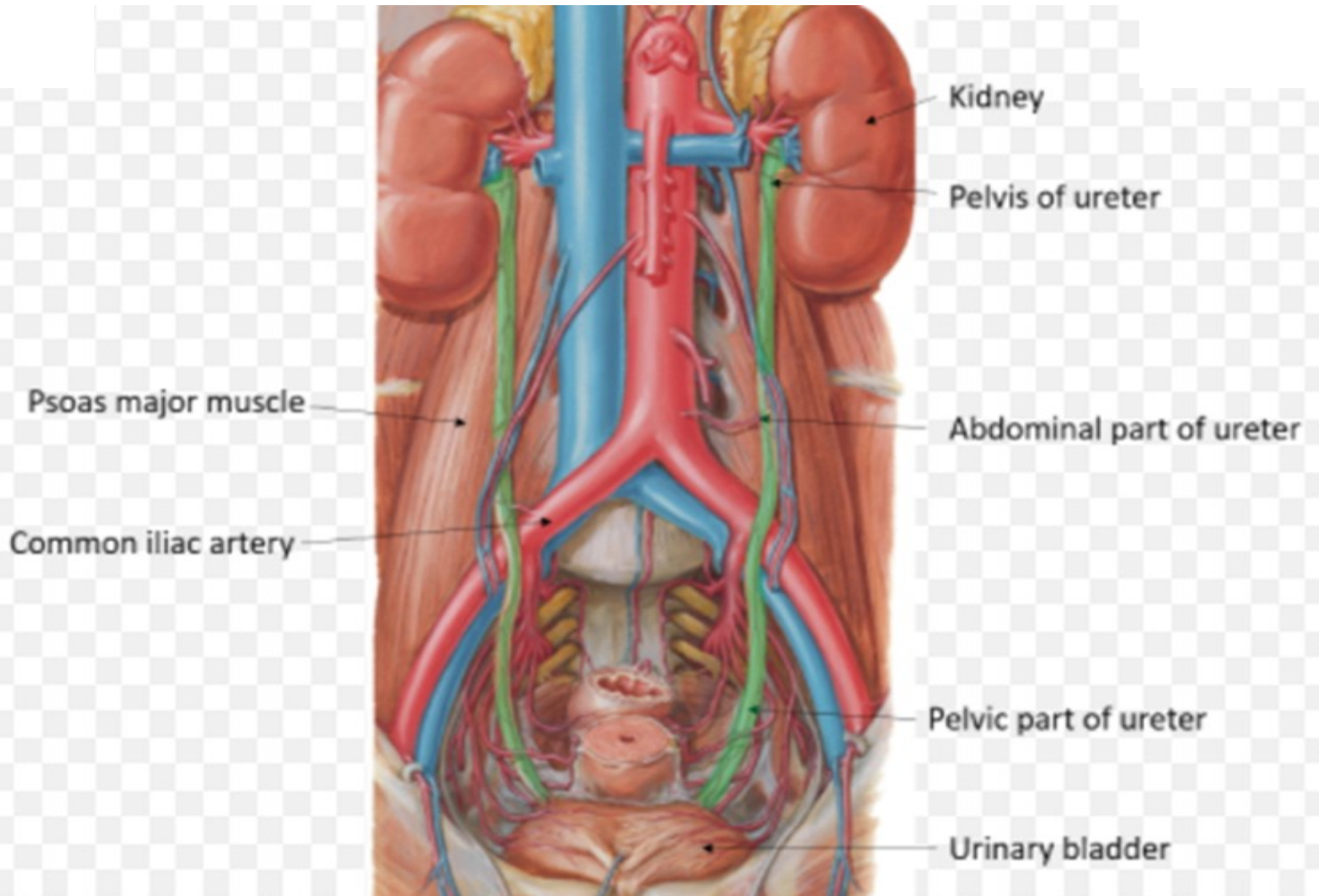
1. Left **Suprarenal** gland
2. **Spleen**
3. **Stomach**
4. **Body of pancreas** and splenic vessels
5. **Small intestine** (Coils of jejunum and branches of the left colic vessels)
6. **The left colic flexure** and the beginning of the **descending**



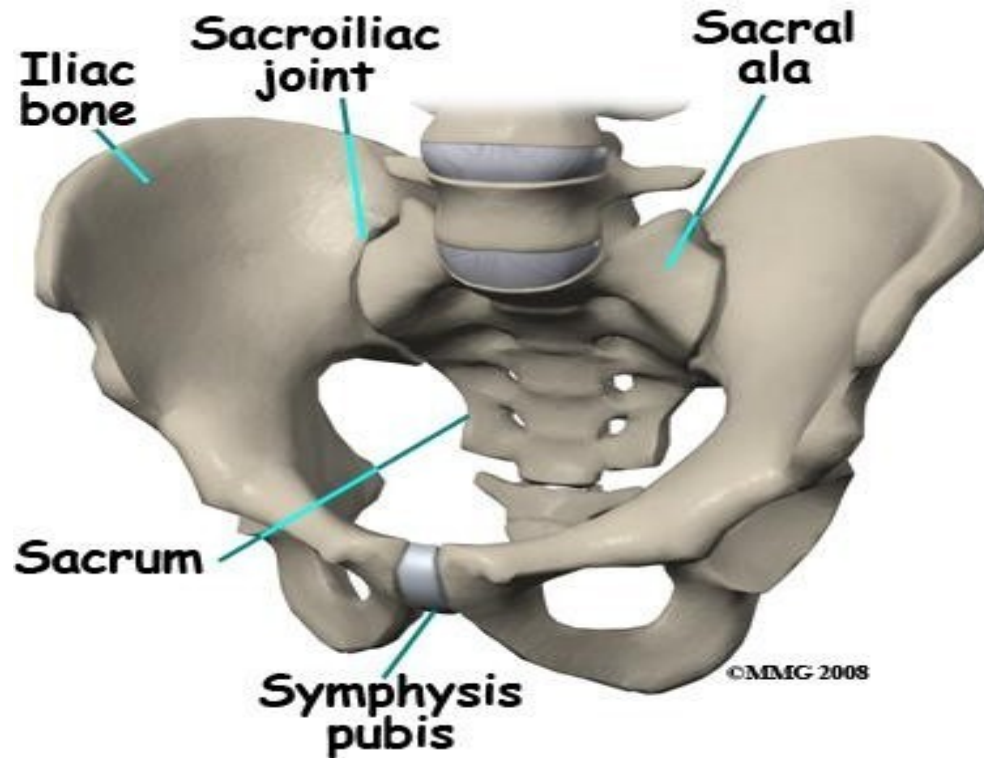
Posterior relations of kidneys



The Ureter



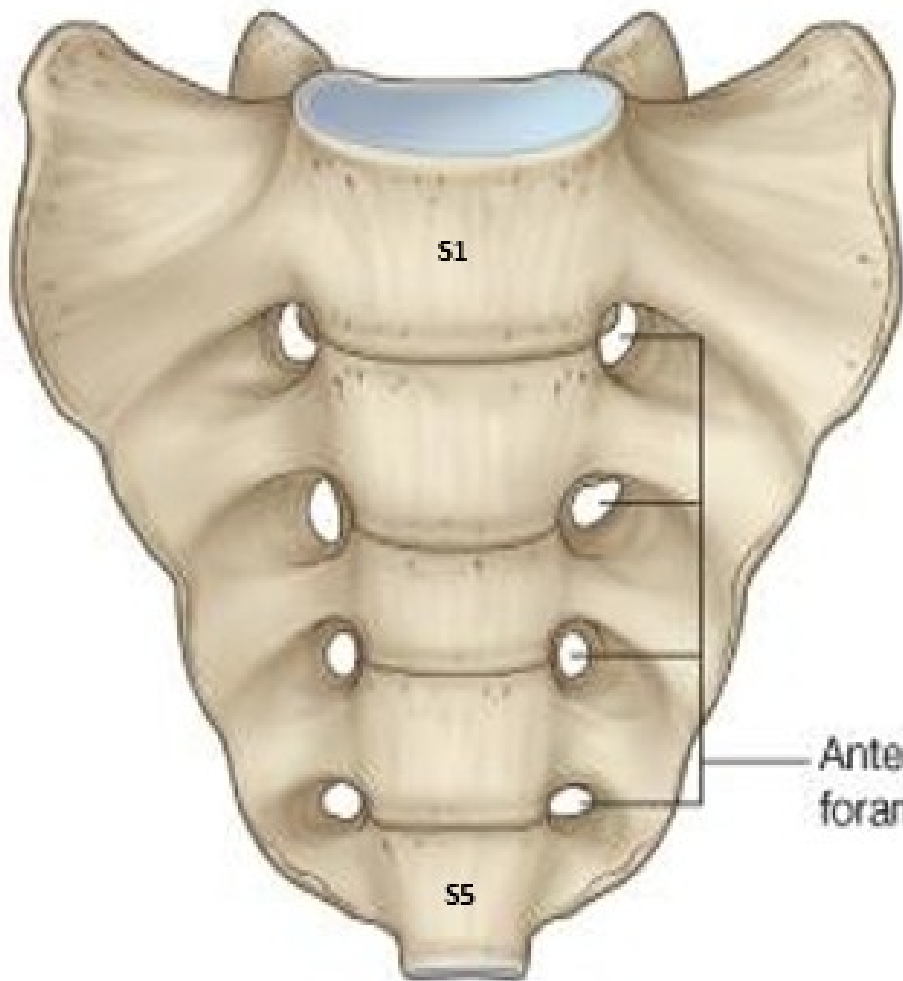
Bony Pelvis



https://www.google.com/eg/search?hl=en-EG&tbs=simg:CAQ5qAljzW5MWuGBXnEanAILELCmpwgaYgpgCAMSKL05iRSYB-k52h3qEpYIqRTZHbAH-zy4NMw2nD38P54-zjaxPrc04TMaMD46QhvO2FEDFsc7KzH6EmjtiWQym39MmTzD9s86cg1vvQ_10hO9mcBqTLg1KoE7g5AEDAsQjq7-CBoKKGgiARIEpJ8dwwLEJ3twQkaIAEKQoHY2FydG9vbtqliPYDCgoIL20vMDixNW4KHwoLM2QgbW9KZWxpbfapYj2AwwKCi9tLzAycDMwdnYKHgolYmIjZXBzIGN1cmzapYj2AwwKCS9tLzA0MMwt6cwoeCgpb3dib3kgaGF02qWI9gM-MCgovbS8wMjVycF9fChYKBGjvbmXapYj2AwoKCC9tLzAxYjkyDA&q=ala+of+the+sacrum&tbn=isch&sa=X&ved=2ahUKEwj72oqhmzqoAhVwplsKHTBGBYwQwg4oAHoECAgQJg

The Sacrum

- **Formed of:** fused 5 sacral pieces (fusion starts from below upwards).
- **Anatomical position:**
 - 1 Base is superior.
 - 2 Ant. surface is concave & smooth.



Anterior (Pelvic) Surface of Sacrum

➤ Base of the Sacrum:

1- Promontory (Body of S1)

a. Its upper surface:

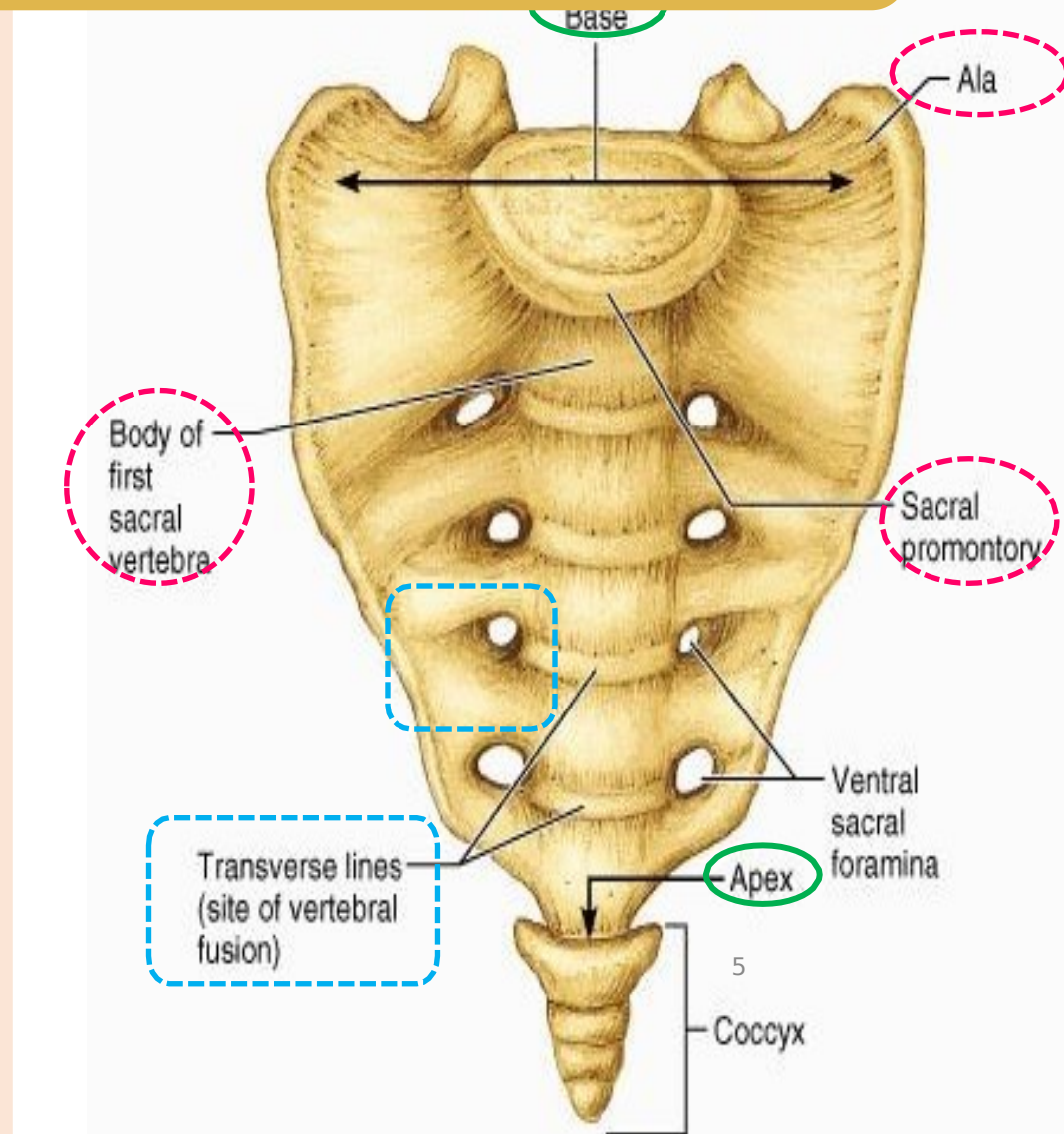
Lumbosacral disc (2ry cartilagenous).

b. Its ant. projecting margin is

called (Sacral Promontory).

2- Ala of sacrum.

➤ Anterior sacral

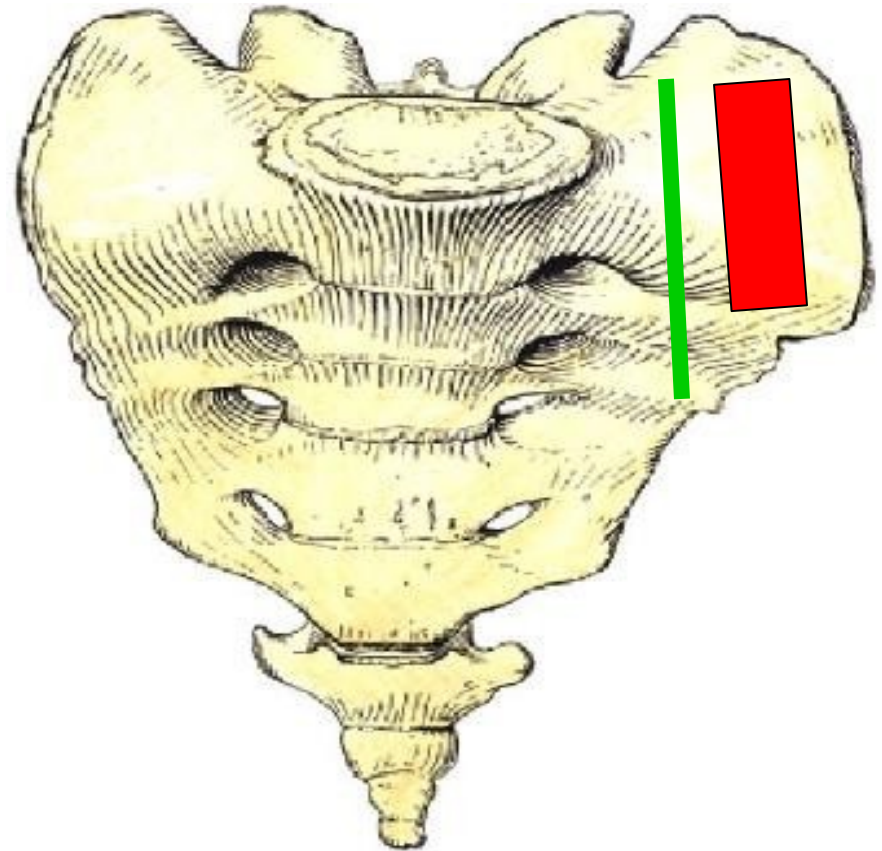


Base (= Upper surface of S1)

It consists of 2 main parts:

2- Ala of sacrum (= fused costal elements ant. & fused transverse processes post.):

- Gives att. to **iliacus M.**
- Related to:
 - **Iliolumbar artery**
 - Lumbosacral trunk (med.)**
 - **Obturator N. (lat.).**



Pelvic Surface

- It is concave to ↑↑ volume of pelvic cavity.
- **4 pairs of ant. sacral foramina:** for lat. sacral As. (in) & ventral rami of S1-4 Ns. (out).
- **Intermediate area bet. the foramina:**

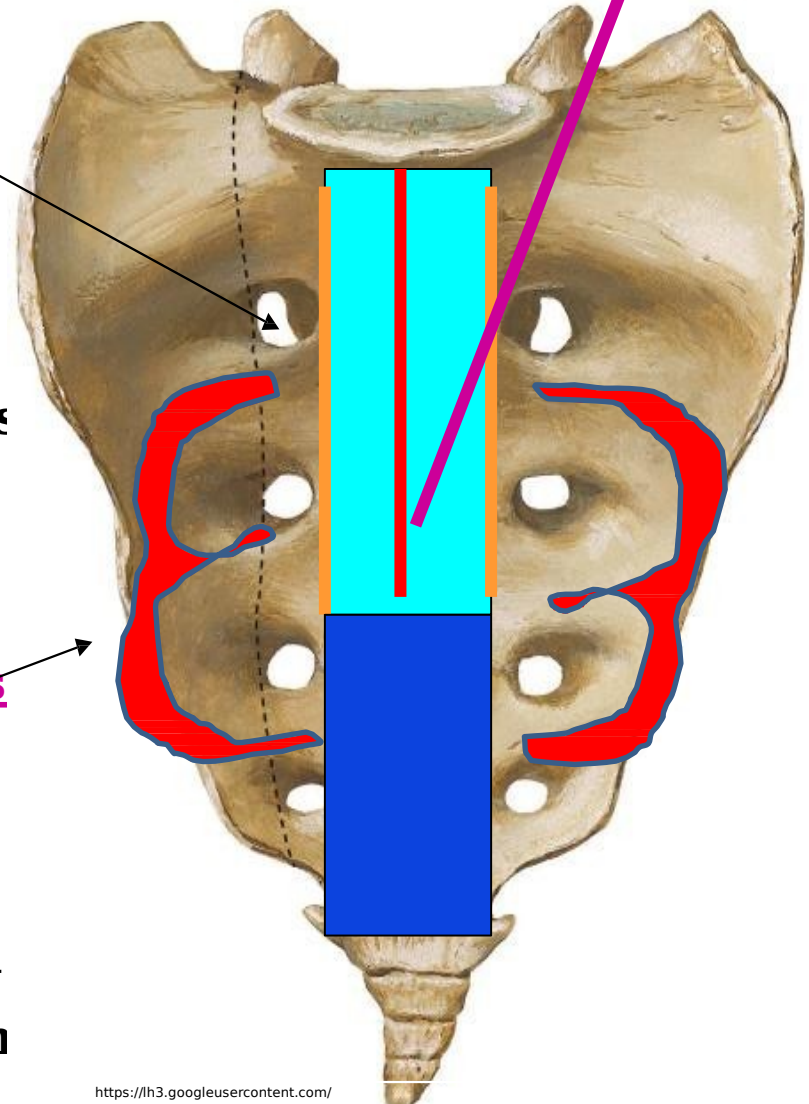
a) = Fused bodies --- **Ant. longitudinal (A).**

b) Covered by peritoneum covering the related structures:

- Median sacral A. in the midline.**
- Symp. trunk lat. + on both sides (med. to ant. sacral F).**
- Sup. rectal A. obliquely on the Lt. s**
- Rectum in the midline below S3.**

• **Lat. to the foramina = Lat. Mass:**

Middle 3 S. pieces (3 in English or 4 in Arabic) --- Piriformis Muscle



Posterior (Dorsal) Surface

Convex, irregular and presents;

1. Median sacral crest:

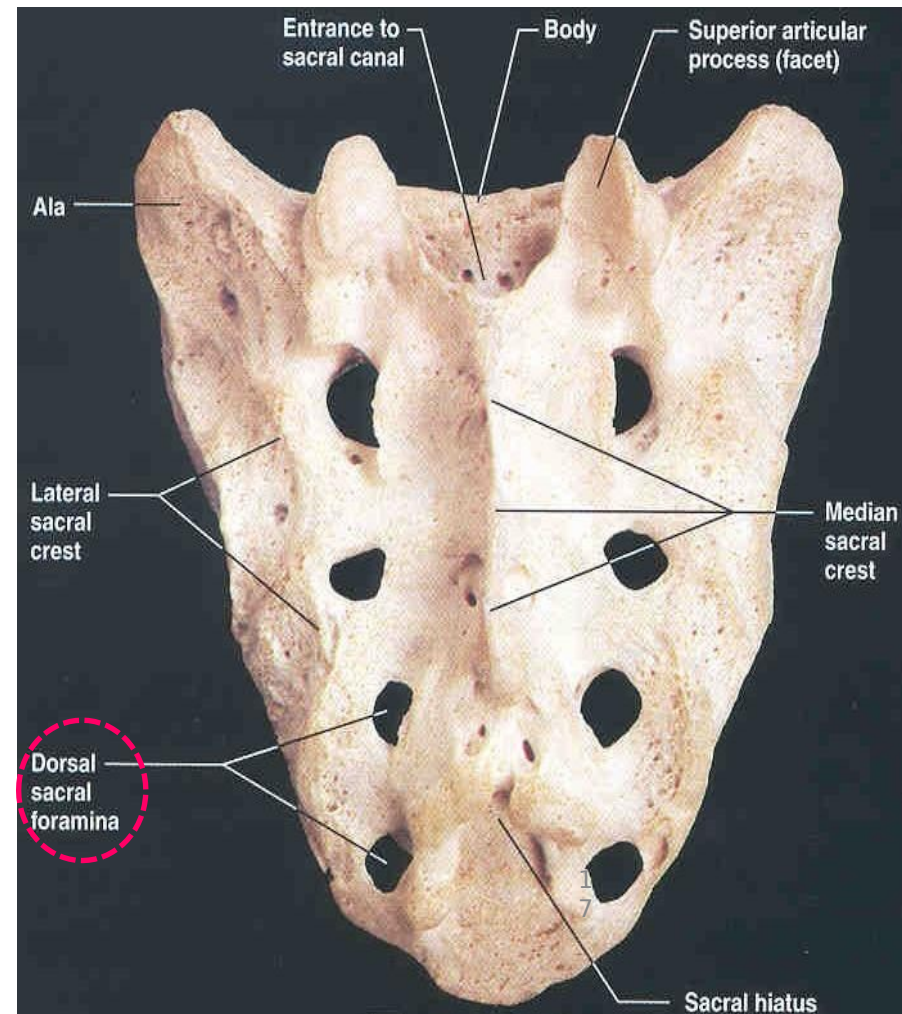
fused spinous processes.

2. Intermediate sacral crest:

fused articular processes.

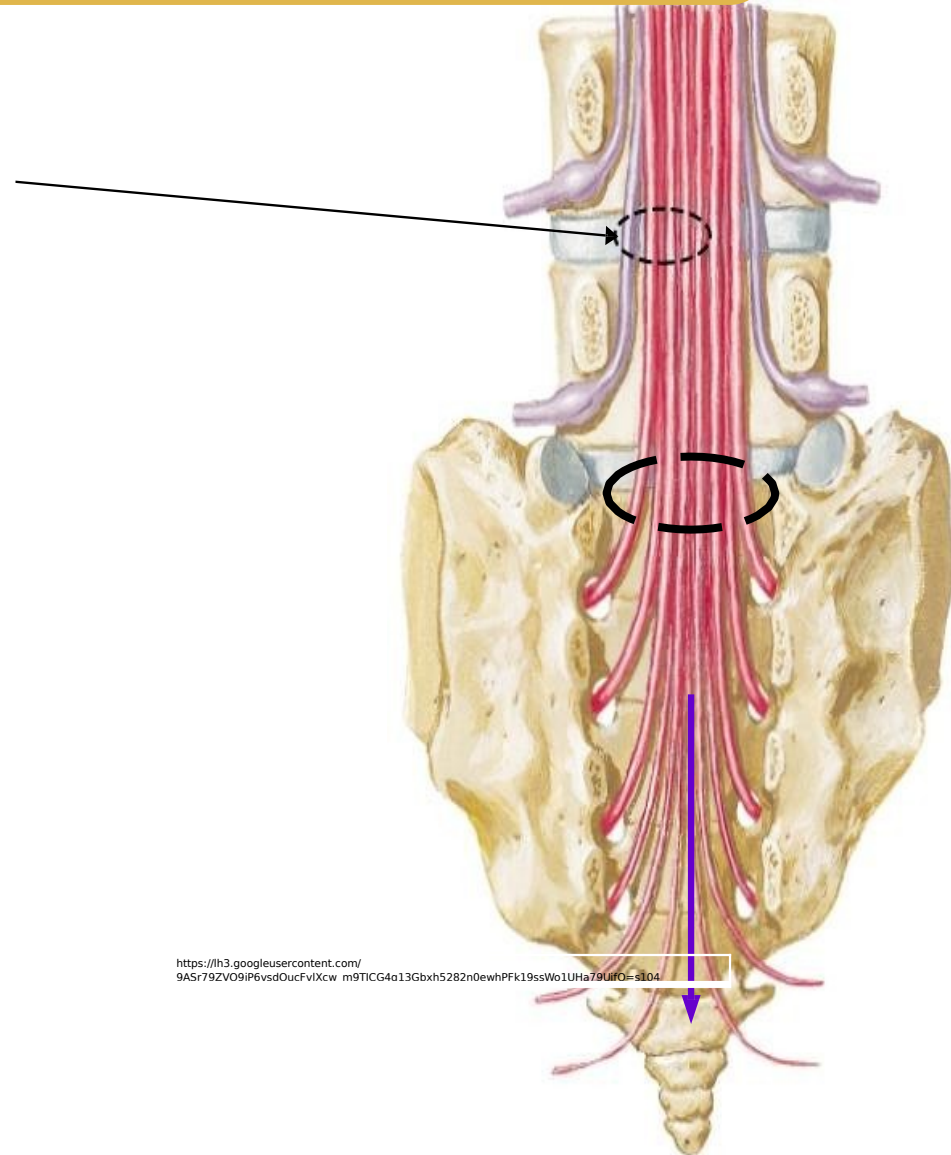
3. Posterior sacral foramina:

(dorsal rami of the



Contents of the Sacral Canal

- Roots of sacral and coccygeal nerves
(cauda equina)
- Filum terminale
- Arachnoid and dural tubes
(end at lower border of S2).
- Small branches of lateral and median sacral arteries.
- Internal vertebral venous plexus



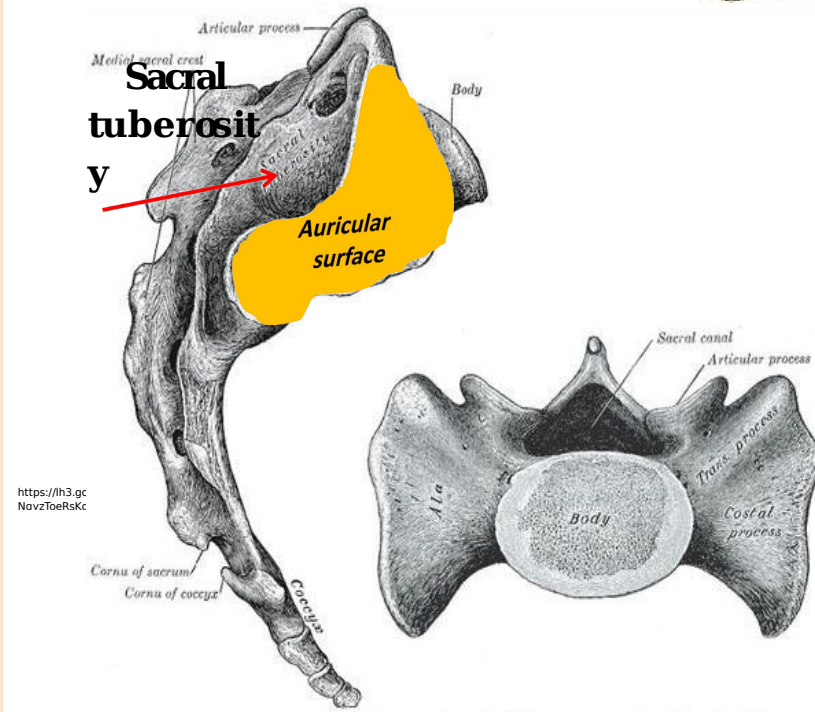
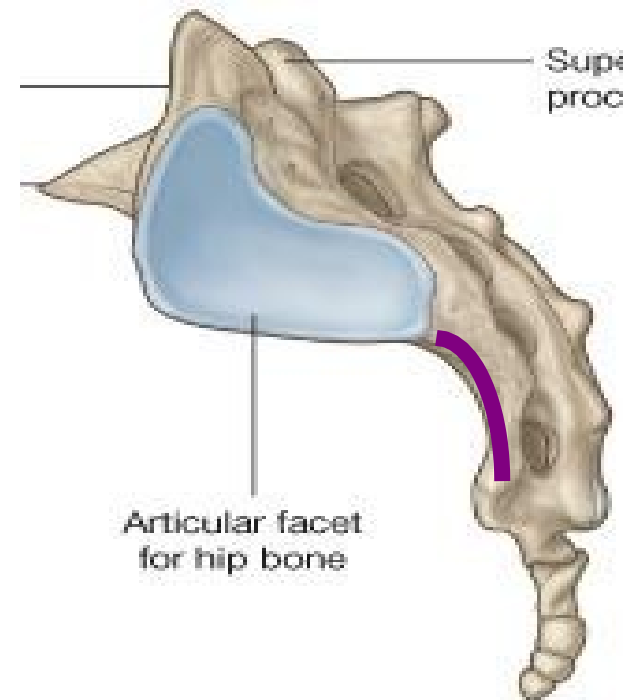
Lateral Surface of Sacrum

It consists of 2 parts:

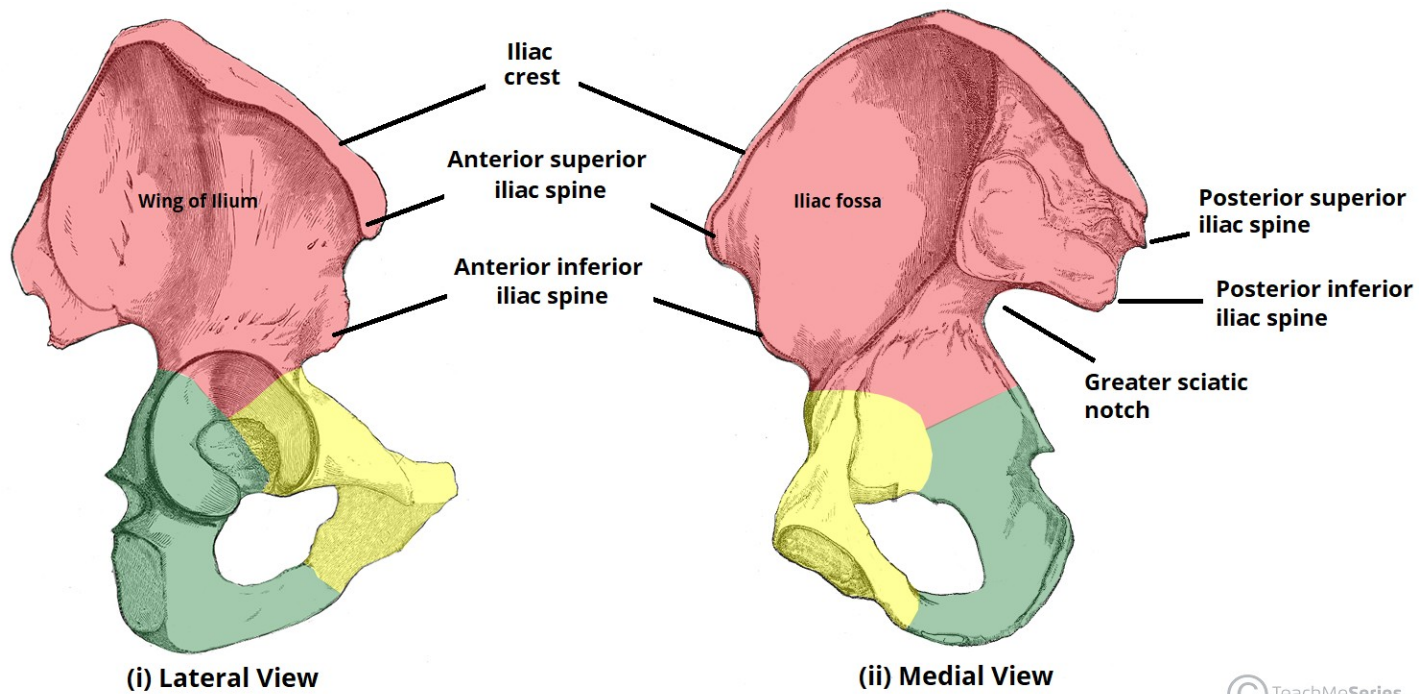
1- Upper wide part (opposite S1,2,3):

1. **Auricular surface:** for sacroiliac joint (synovial plane).
2. **Sacral tuberosity:** attachment of interosseous sacroiliac ligament.

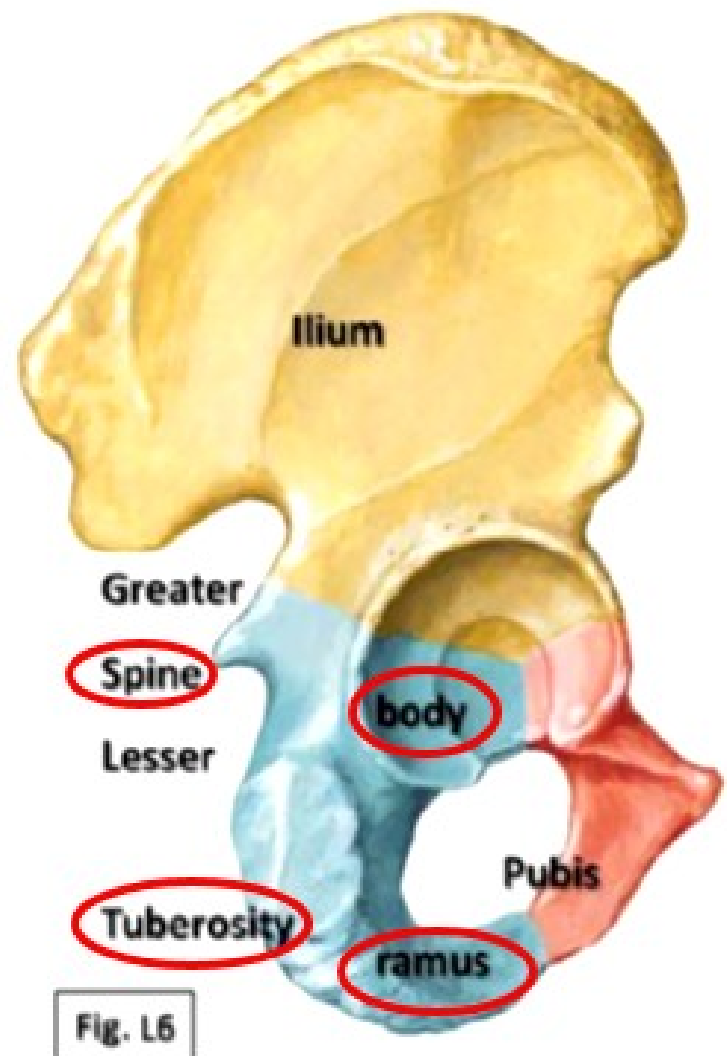
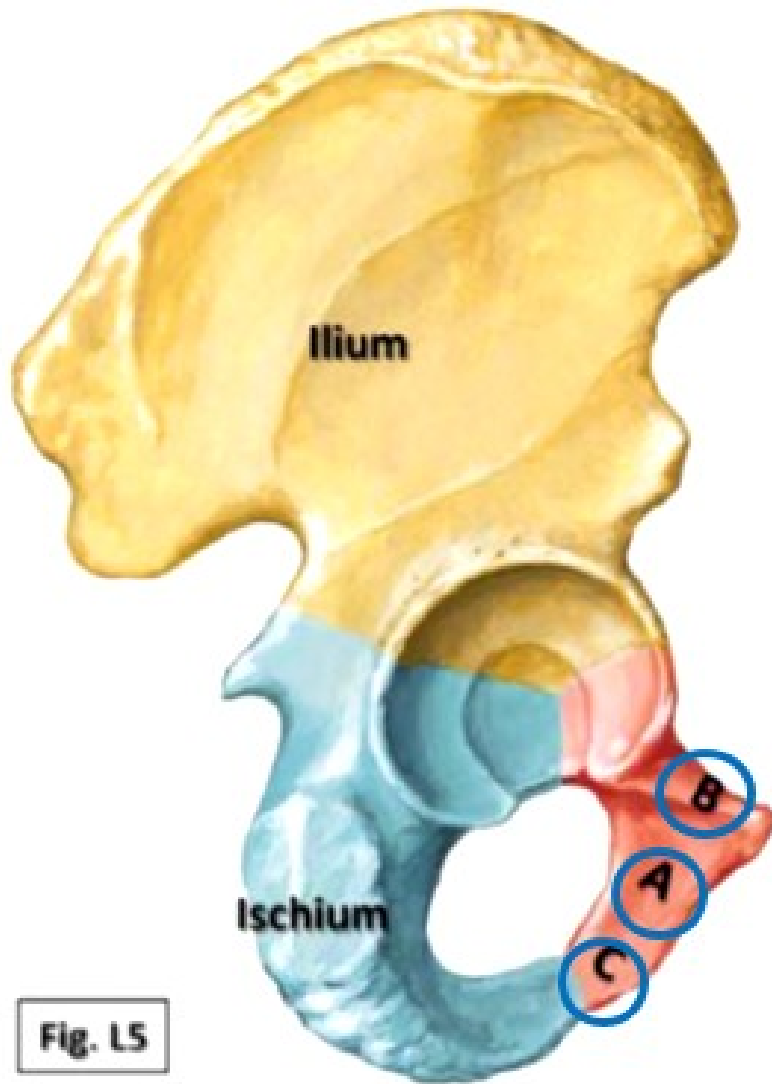
2- Lower narrow part (opposite S4, 5)

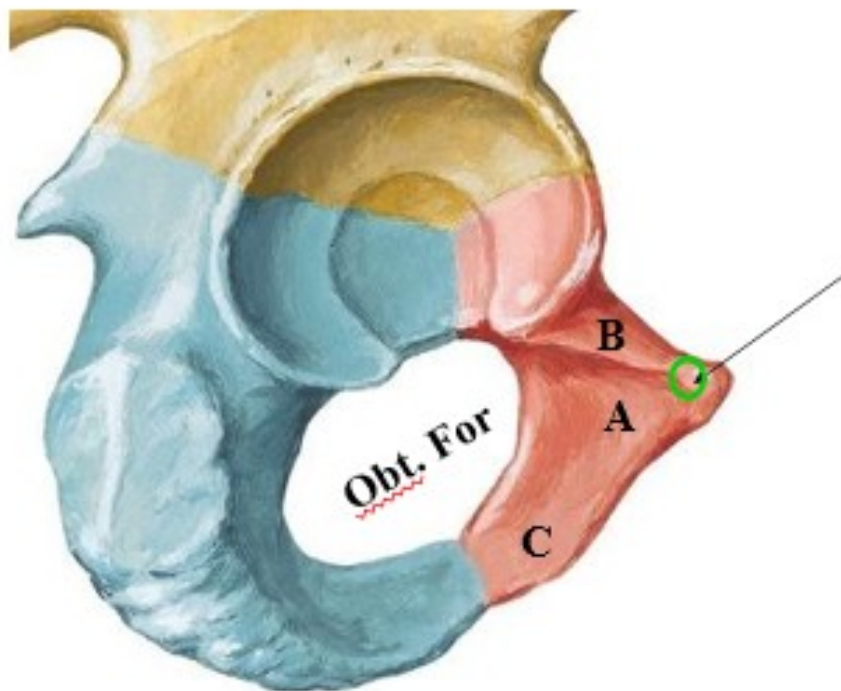


The Hip Bone



The Hip Bone





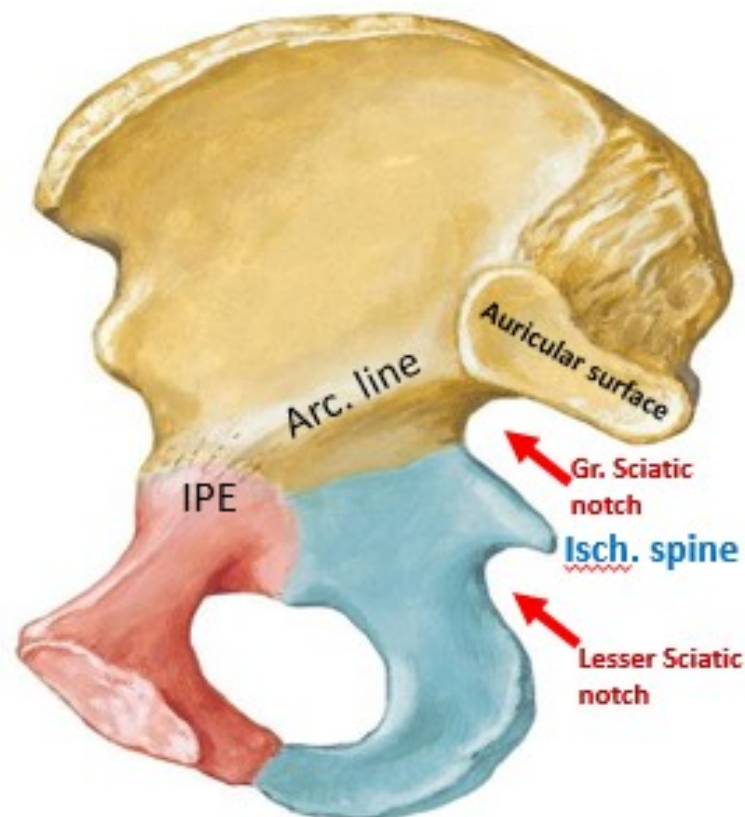
Upper border = Pubic crest:

- Ends lat. by **Pubic tubercle**

A. Pubic body.

B. Sup. Pubic ramus.

C. Inf. Pubic ramus. Both rami surround the **obturator foramen.**



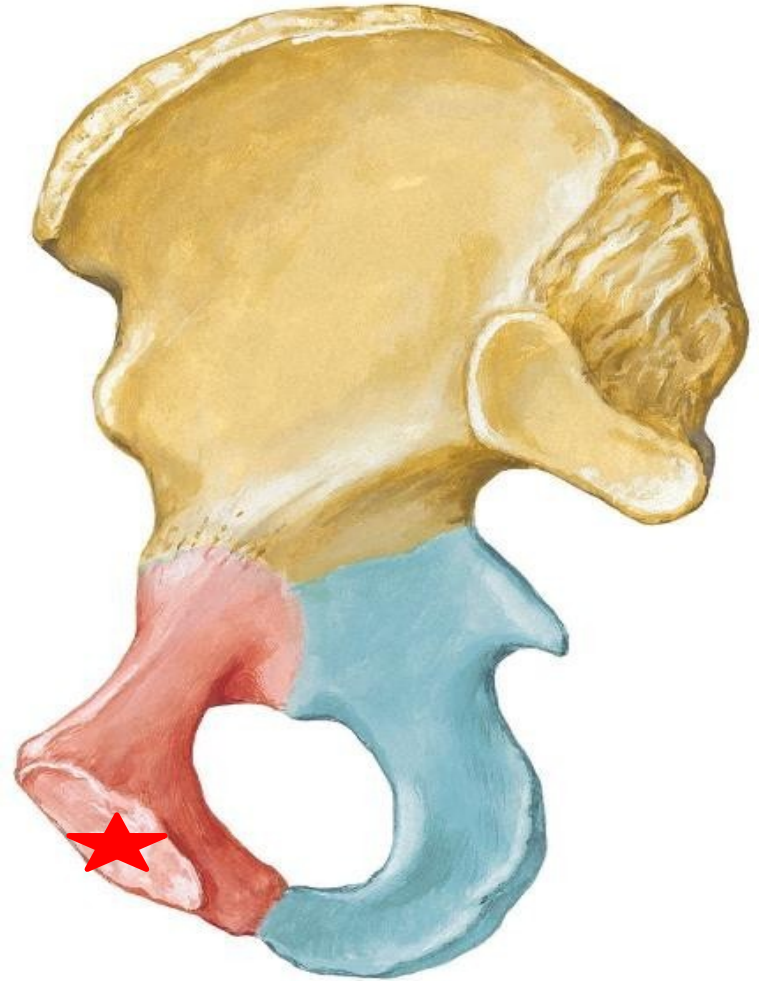
- **Arcuate line**
- **Iliopectineal eminence**
- **Auricular surface.**
- **Ischial spine**
- **Greater sciatic notch**
- **Lesser sciatic notch**

BODY OF PUBIS

1 Symphyseal surface:

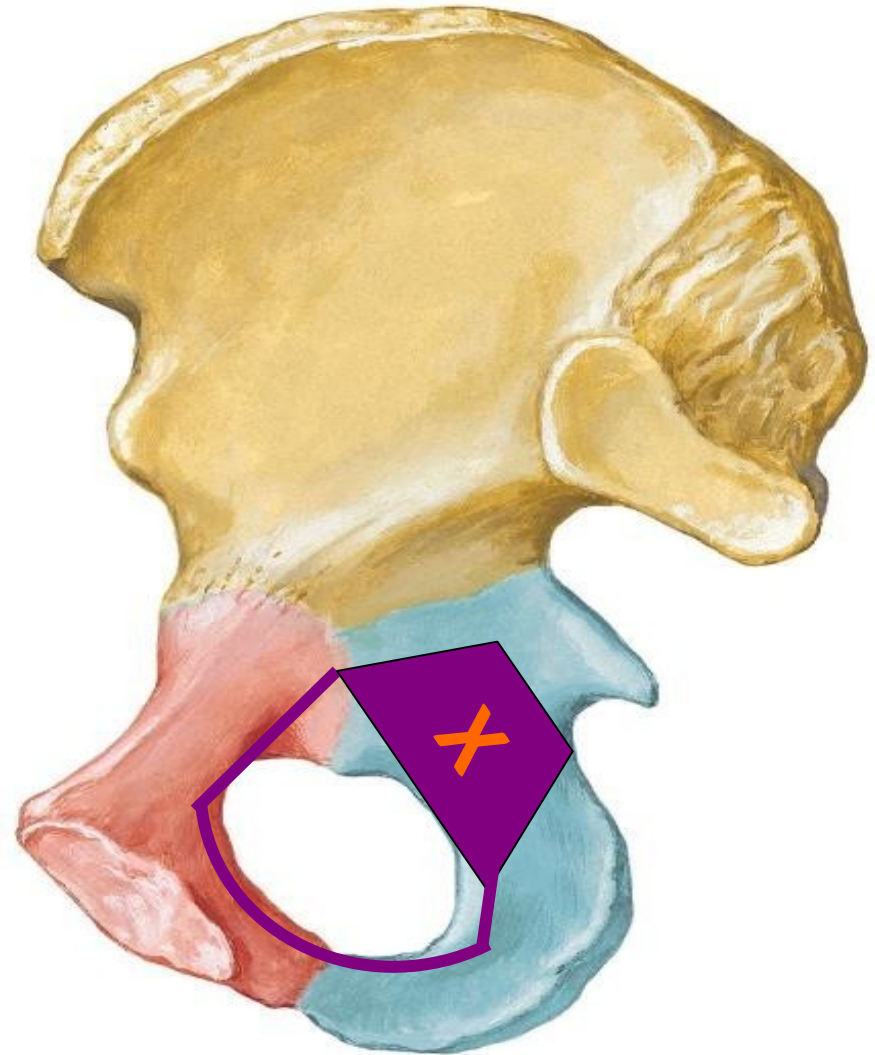
- a. Articulates with its fellow
Symphysis pubis

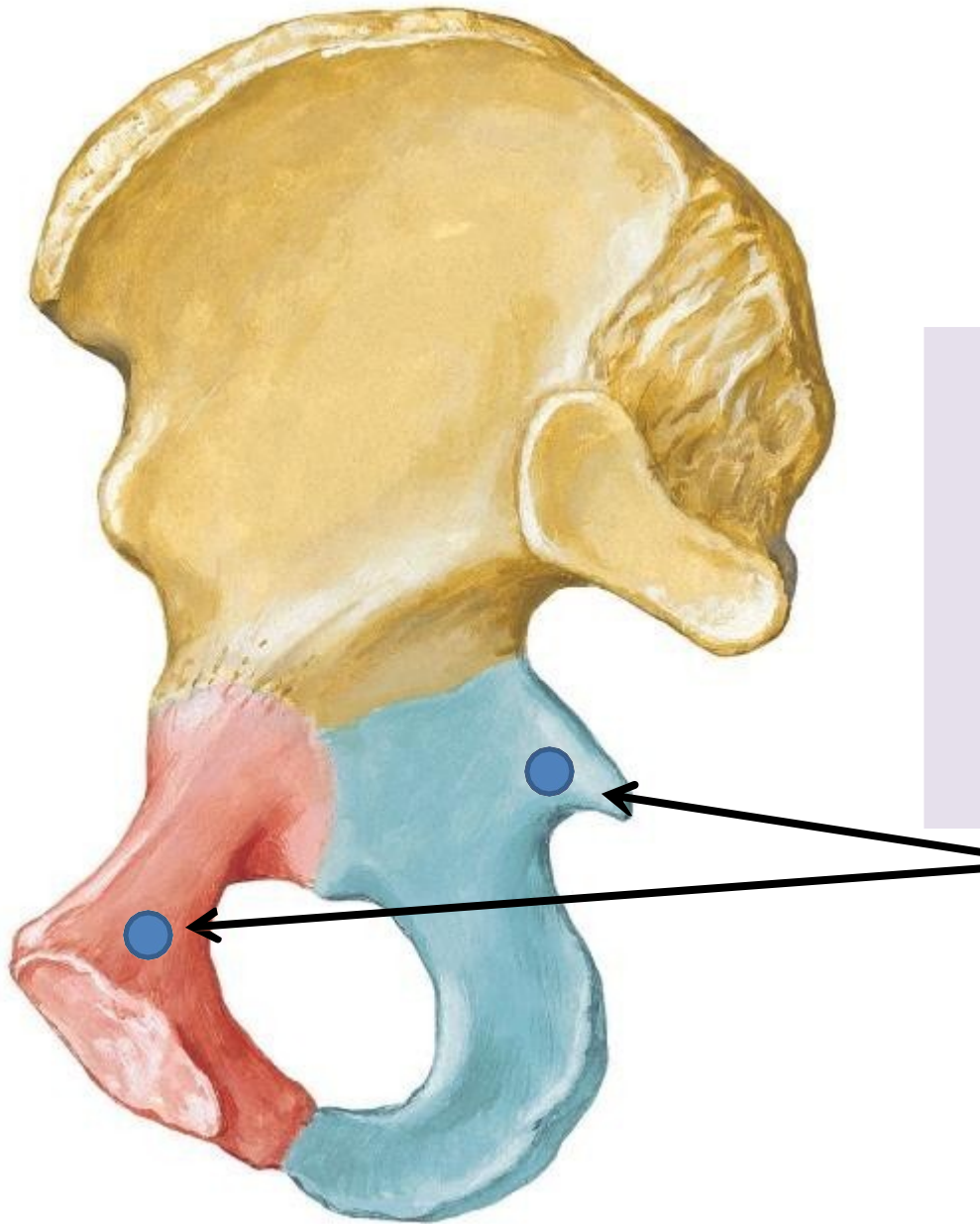
(2ry
cartilagenous).



**Structure
Attached :**

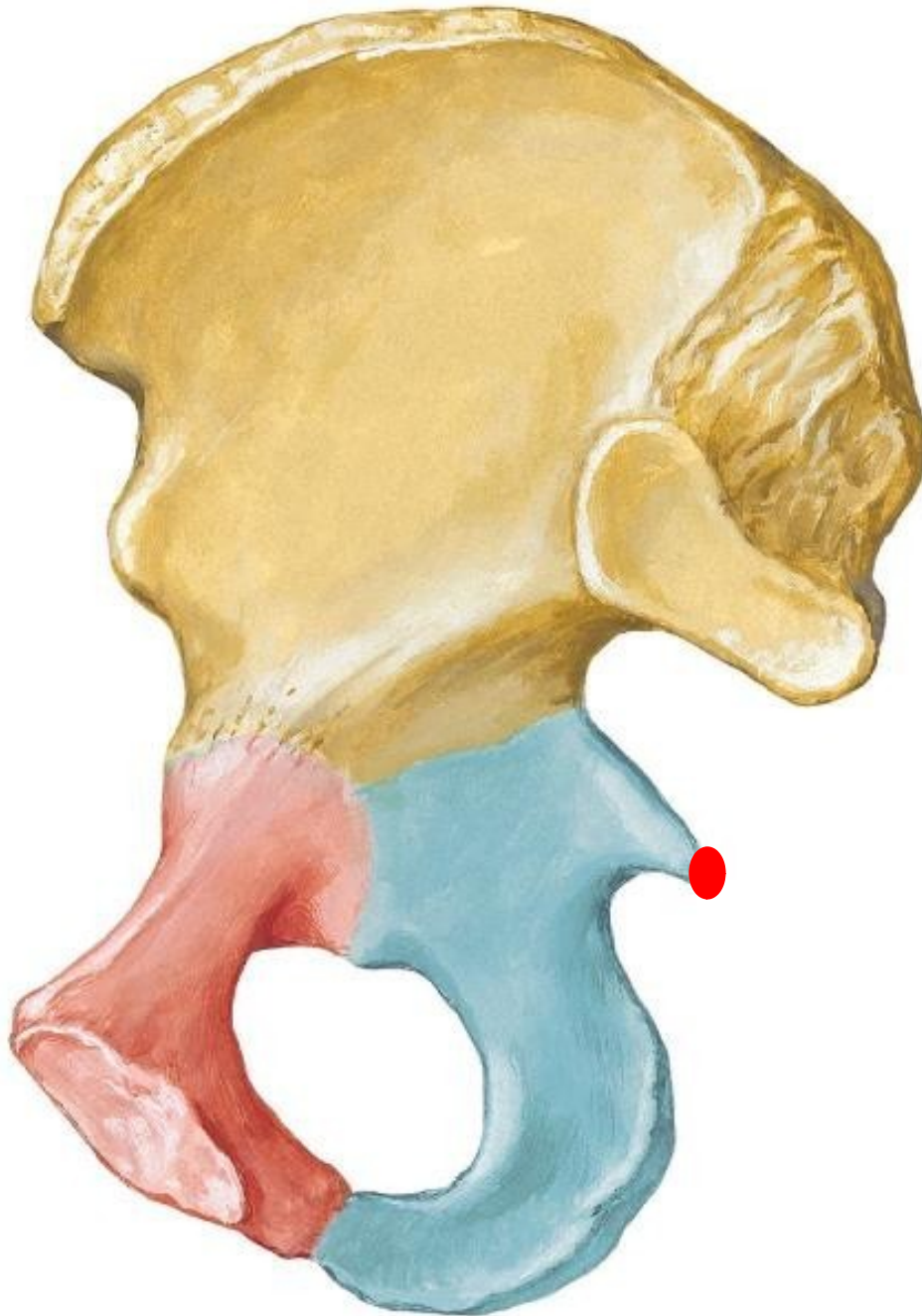
**Obturator
internus
Muscle.**





Structure
Attached :

Levator Ani



Structure
Attached :

Coccygeus
+
Sacrospinous
Ligament

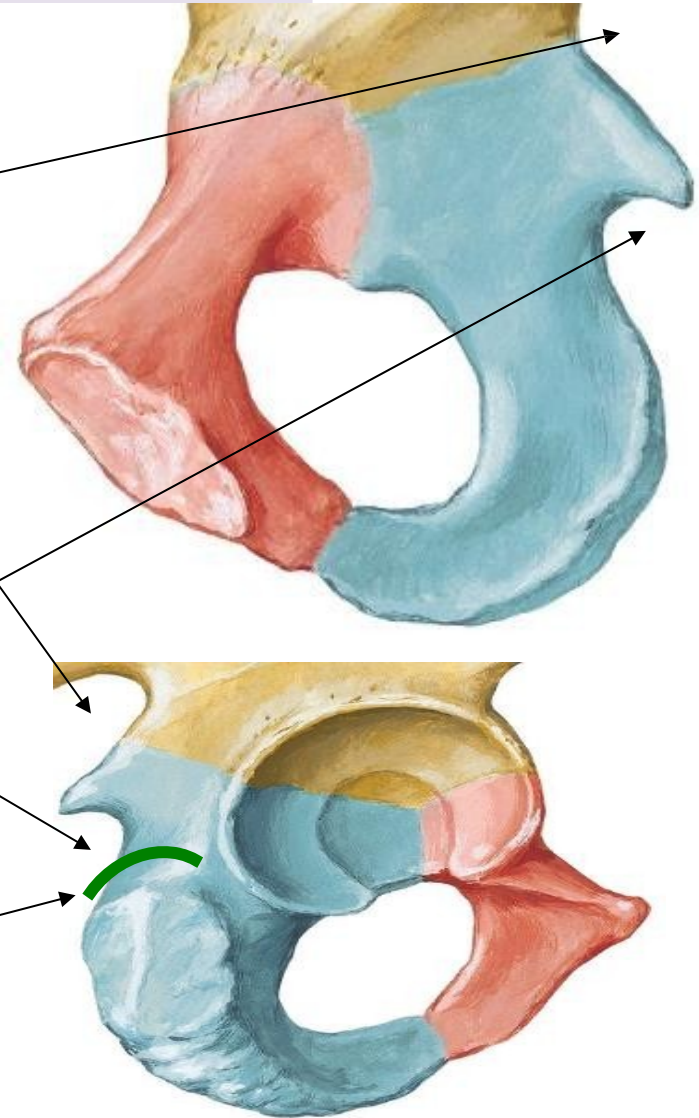
Sciatic Notches

- **GREATER SCIATIC NOTCH:**

(structures passing: piriformis, sup & inf gluteal ns & vs, sciatic n, post cut n of thigh).

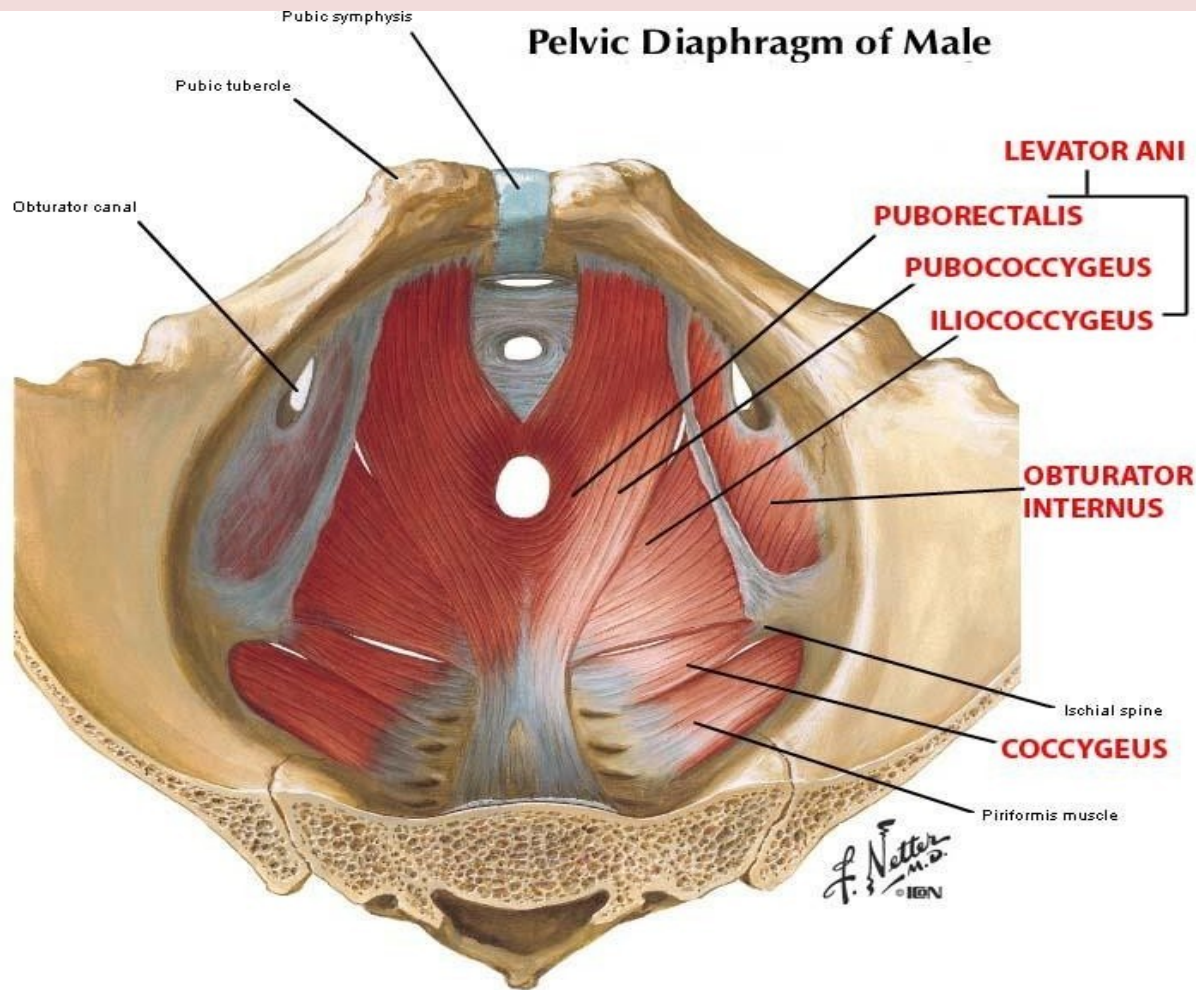
- **LESSER SCIATIC NOTCH:**

(structures passing: pudendal n, int pud artery, n to obturator internus)



With a groove just above ischial

The Pelvic Muscles



Pelvic Diaphragm

I- Levator Ani

II- Coccygeus

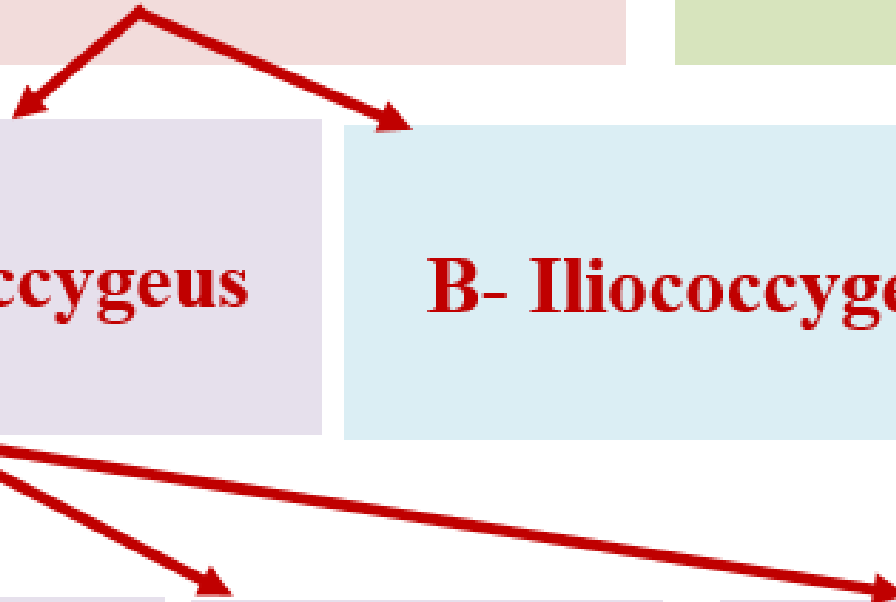
A- Pubococcygeus

B- Iliococcygeus

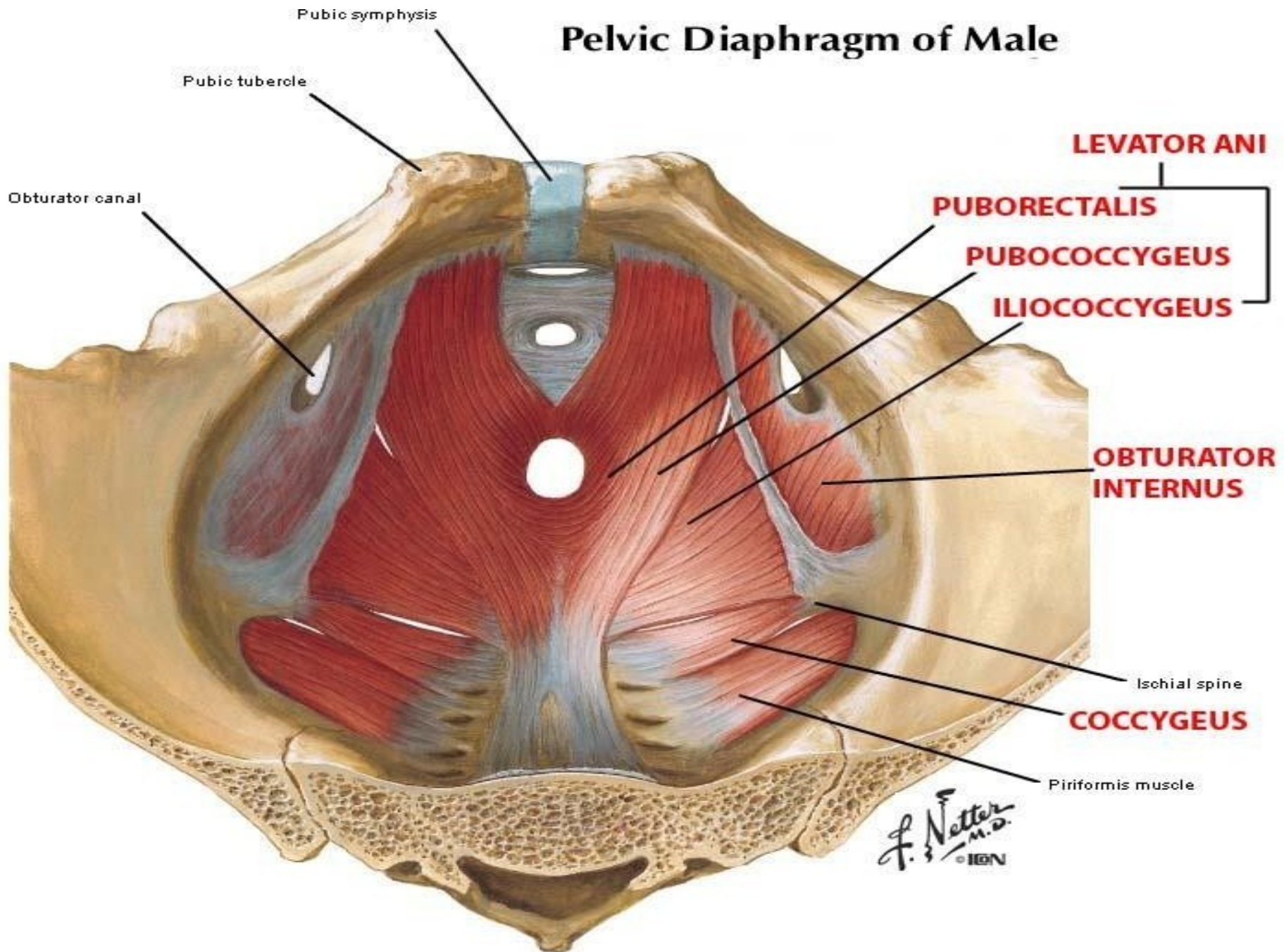
**Levator prostate
Or
Sphincter vaginae**

Puborectalis

**Pubococcygeus
Proper**



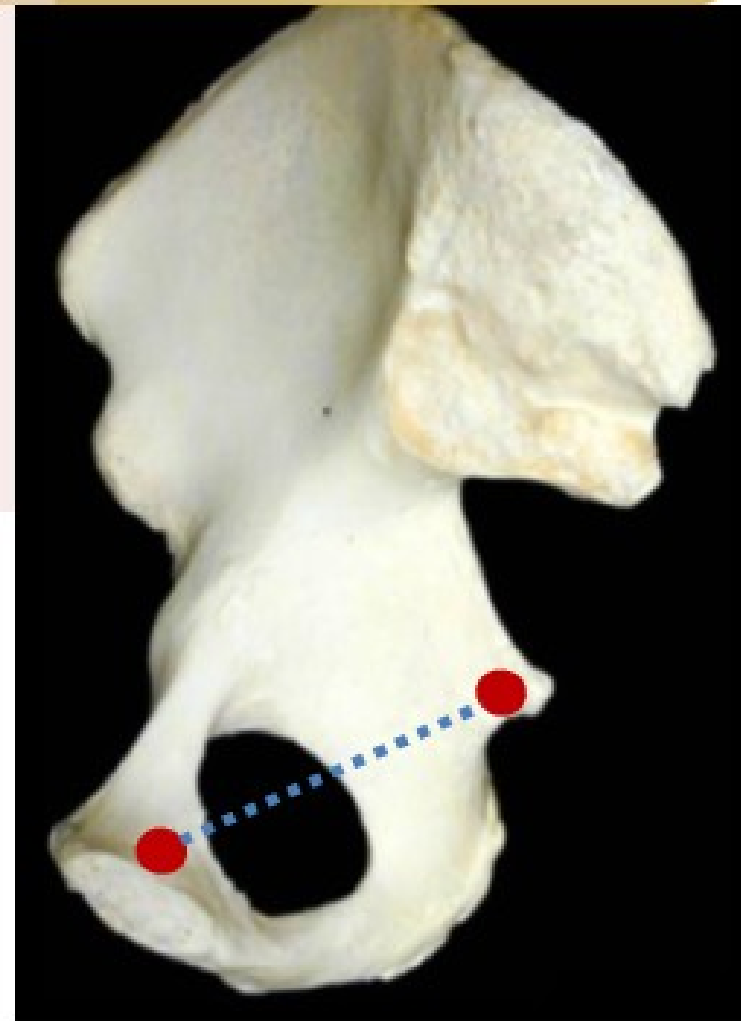
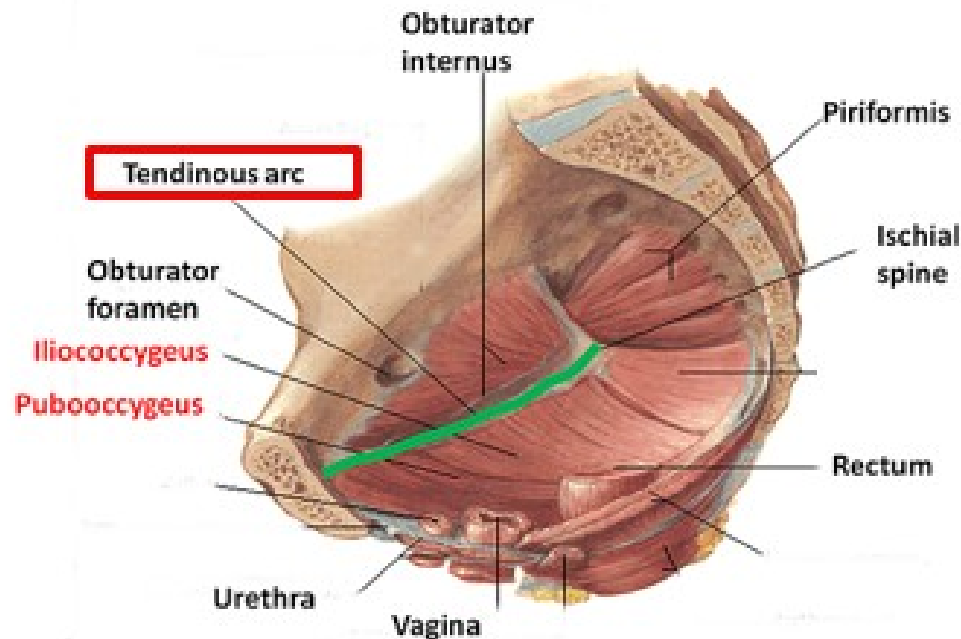
Pelvic Diaphragm of Male



I- Levator Ani

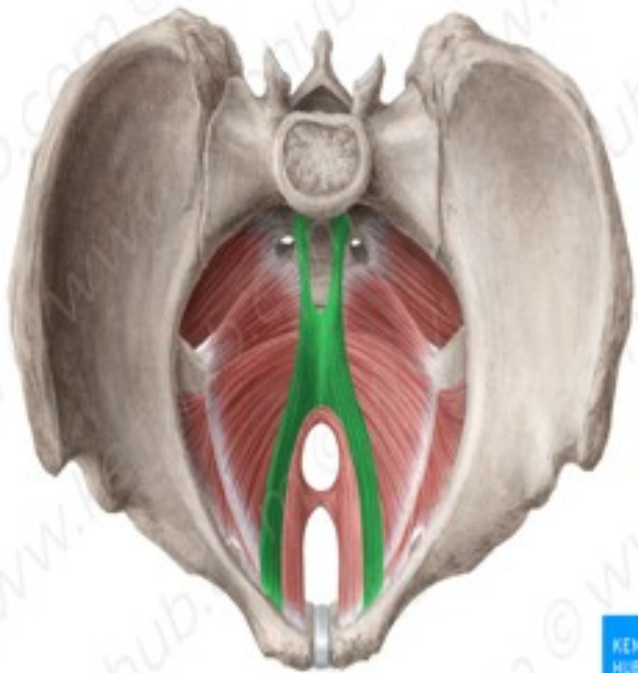
➤ Origin:

1. Pelvic surface of pubis.
2. Pelvic surface of ischial spine.
3. Tendinous arch (white line)
(a thickening in the fascia covering obturator internus).



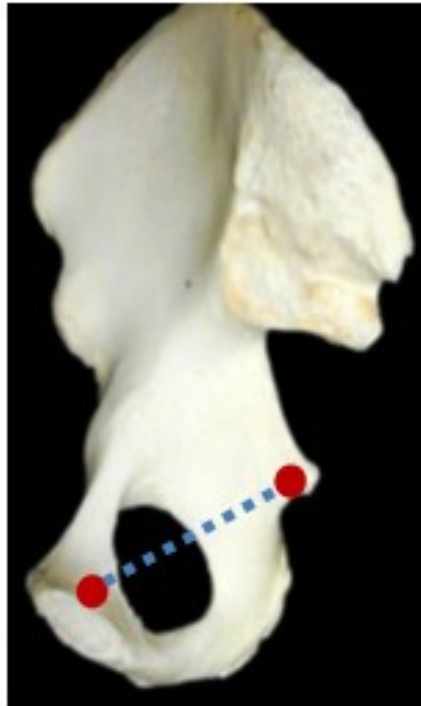
Levator Ani

Pubococcygeus

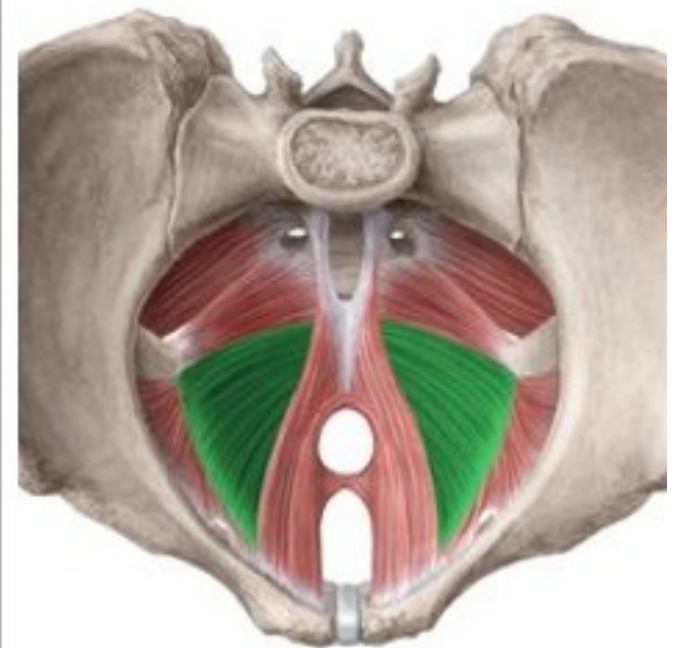


Origin

Pelvic surface of the pubis
+ Anterior $\frac{1}{2}$ of the white line.



Iliococcygeus



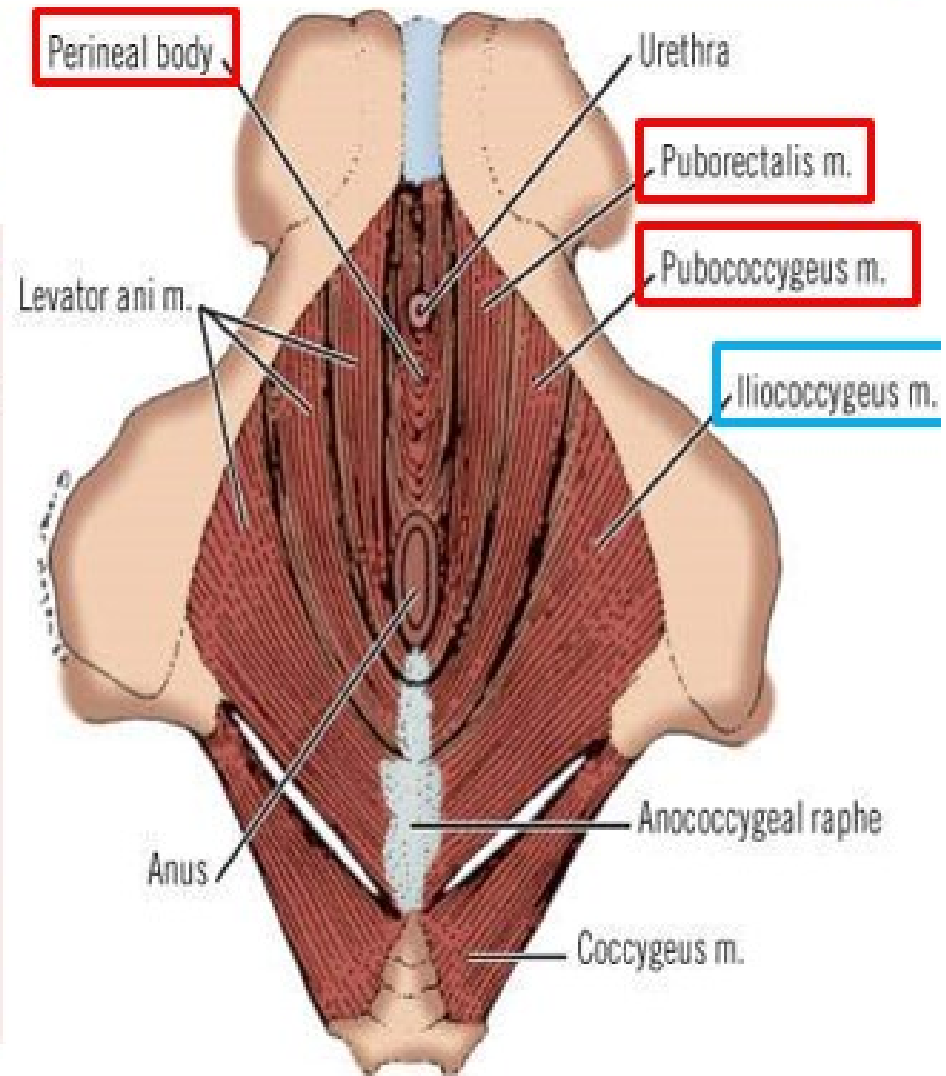
Origin

Pelvic surface of ischial spine
+ Posterior $\frac{1}{2}$ of the white line.

Levator Ani

Pubococcygeus

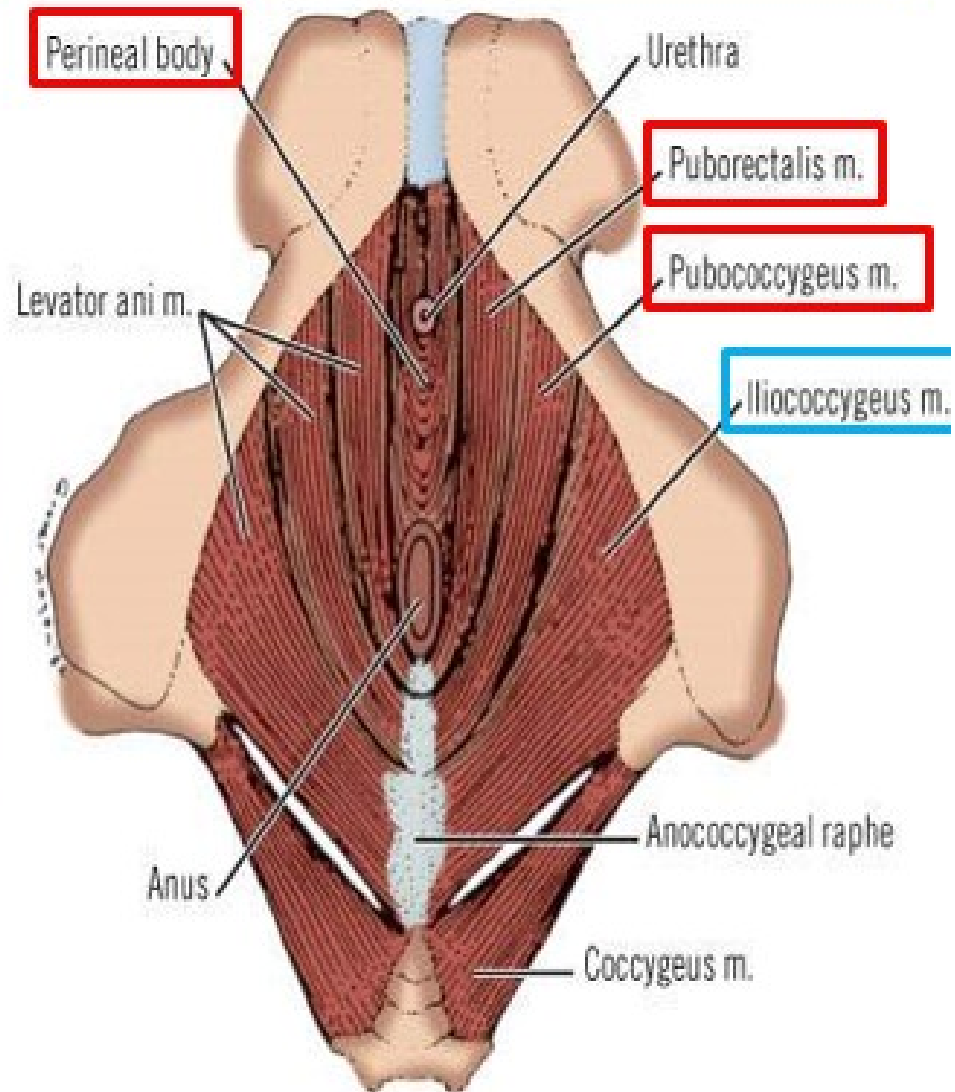
- **Levator prostatae or sphincter vaginae:** Most anterior fibres passing around sides of prostate (in male) or sides of vagina (in female) to be inserted into perineal body.
- **Puborectalis:** Intermediate fibres passing to become continuous with the fibres of the opposite side around the anorectal junction forming a U-shaped sling.
- **Pubococcygeus proper:** Most posterior fibres are inserted into the anococcygeal raphe and tip of coccyx.



Levator Ani

Iliococcygeus

Its fibers pass medially deep to pubococcygeus proper to be attached also into the side of the coccyx and the ano-coccygeal raphe.



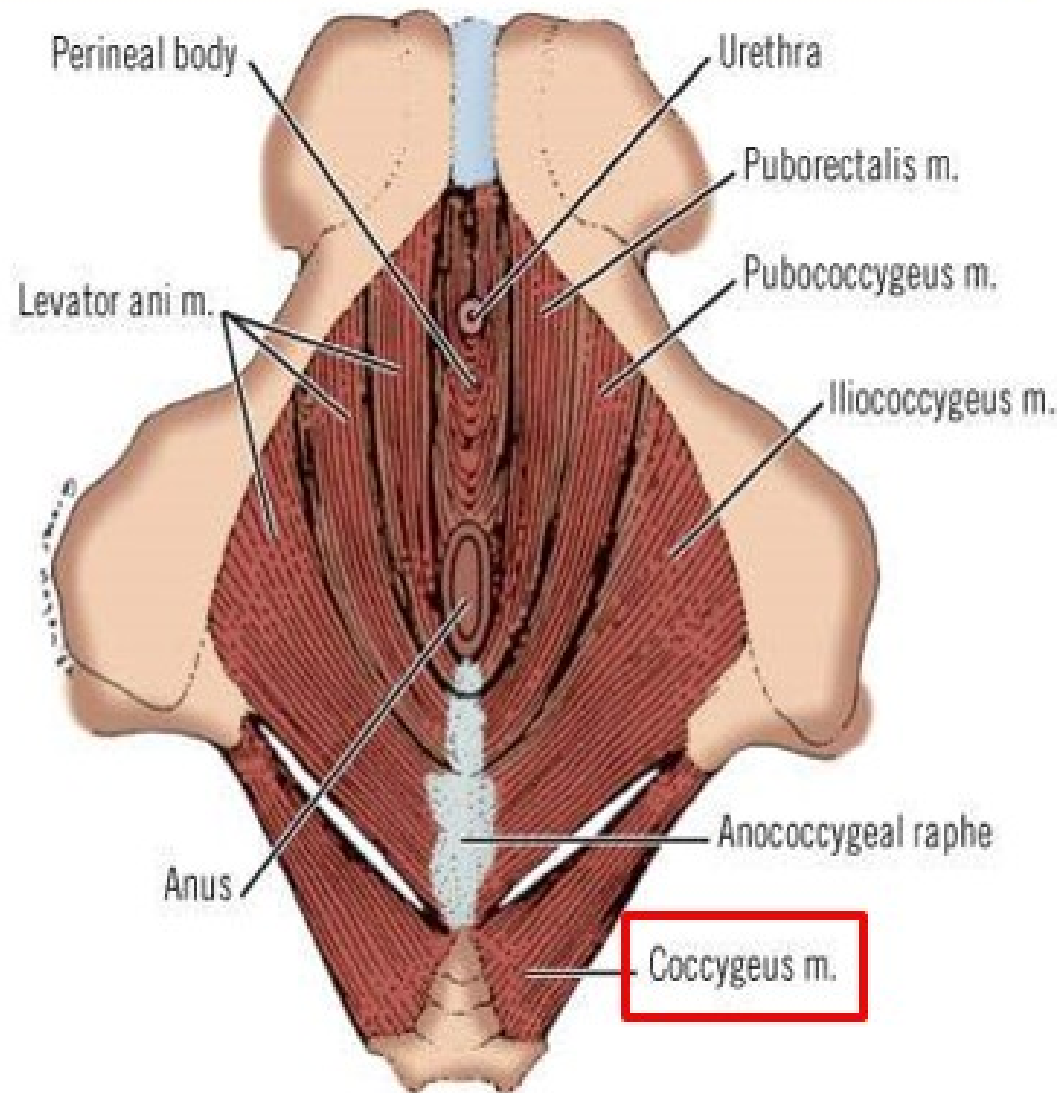
II- Coccygeus

➤ Origin:

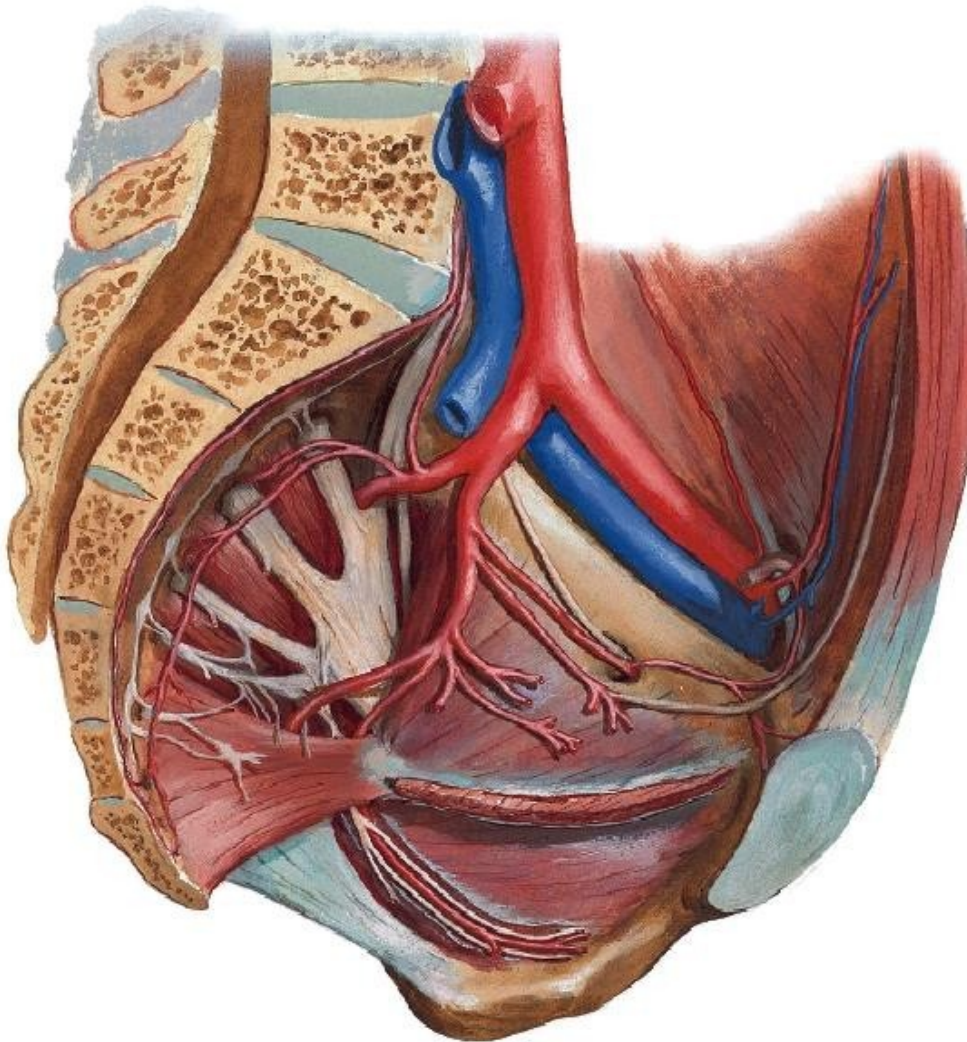
Tip of ischial spine.

➤ Insertion:

Side of S5 and side of the coccyx.



The Pelvic Vessels and Nerves



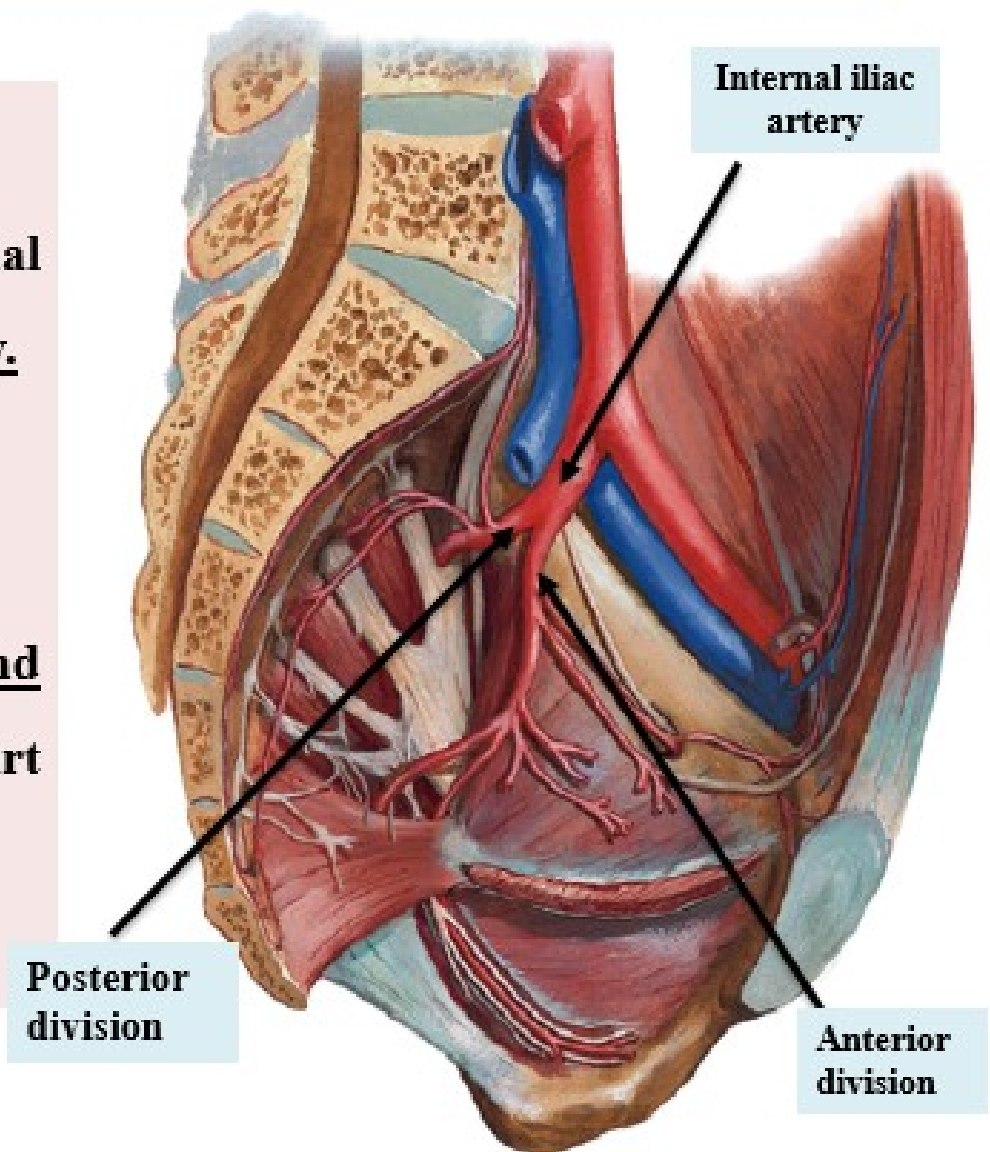
Internal Iliac Artery

➤ Beginning:

As the smaller of the two terminal branches of the common iliac artery.

➤ Termination:

By dividing into anterior and posterior divisions at the upper part of greater Sciatic foramen .



Internal Iliac Artery

➤ Branches of posterior division
(parietal):

- 1- Iliolumbar artery
- 2- Lateral sacral arteries
- 3- Superior gluteal artery

➤ **Branches of posterior division
(parietal):**

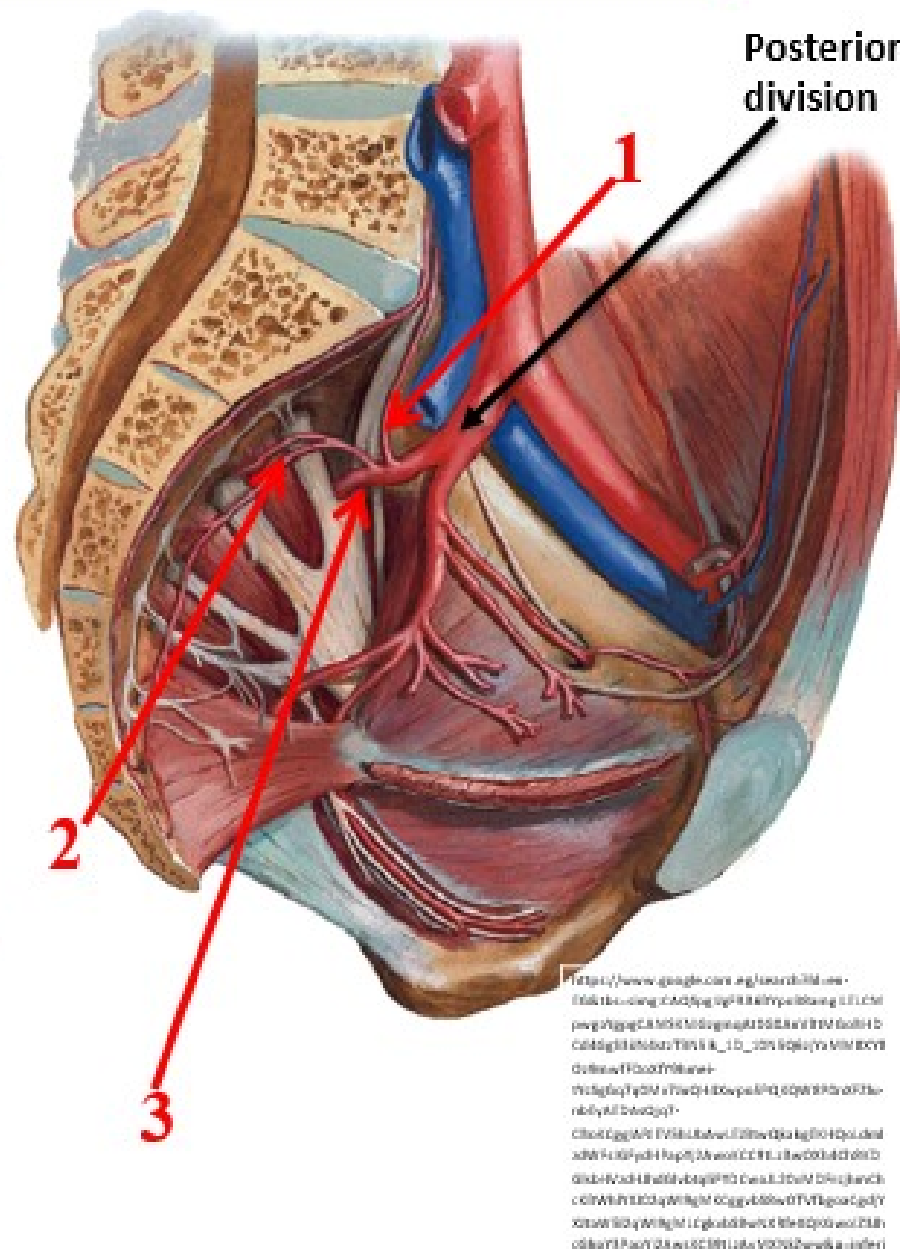
- 1- Iliolumbar artery**
- 2- Lateral sacral arteries**
- 3- Superior gluteal artery**

➤ **Branches of posterior division
(parietal):**

- 1- Iliolumbar artery**
- 2- Lateral sacral arteries**
- 3- Superior gluteal artery**

➤ **Branches of posterior division
(parietal):**

- 1- Iliolumbar artery**
- 2- Lateral sacral arteries**
- 3- Superior gluteal artery**



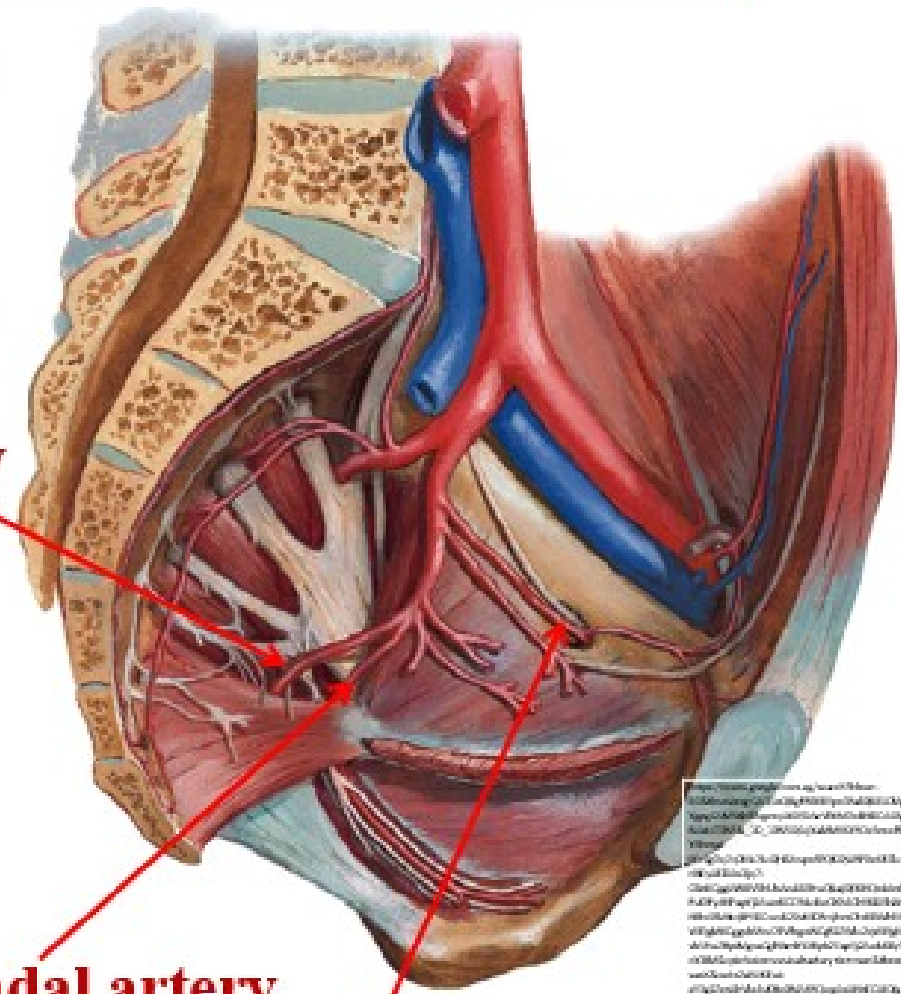
Internal Iliac Artery

Branches of anterior division (parietal branches):

1 - Inferior gluteal artery

2 - Internal pudendal artery

3 - Obturator artery



Internal Iliac Artery

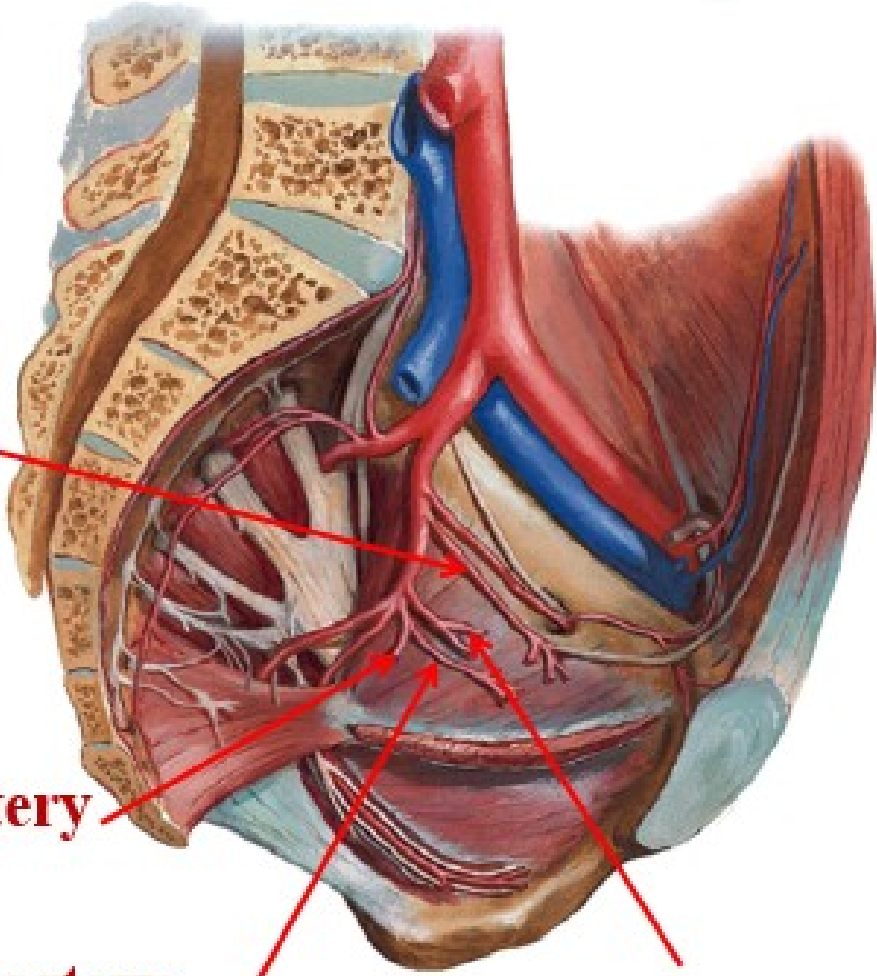
**Branches of anterior division
(visceral branches):**

1 – Umbilical artery

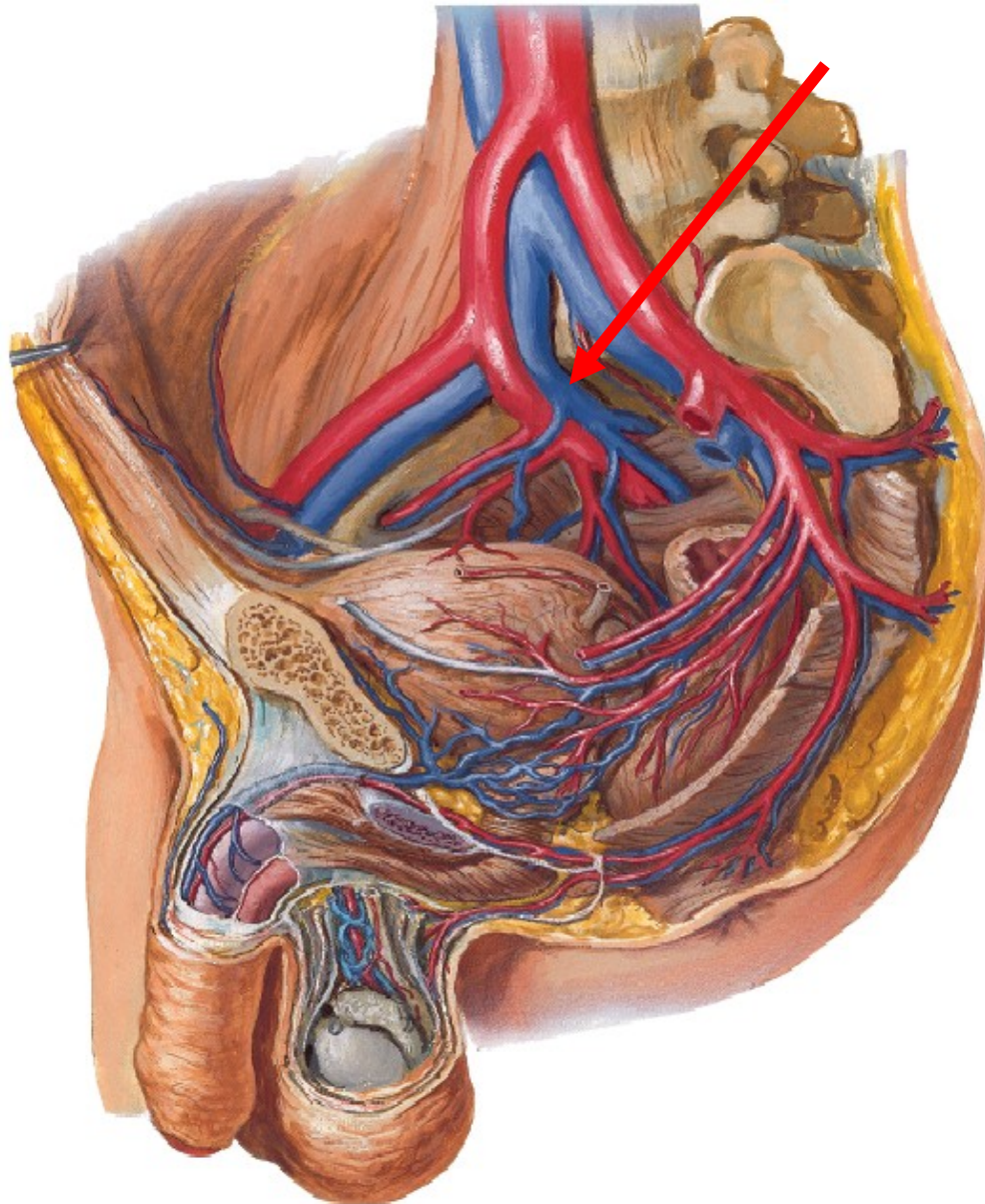
2 – Middle rectal artery

3- Inferior vesical artery or Vaginal artery (female)

4- Uterine artery (female)



Internal Iliac Vein



Vessels related to the sacral plexus

Superior gluteal artery

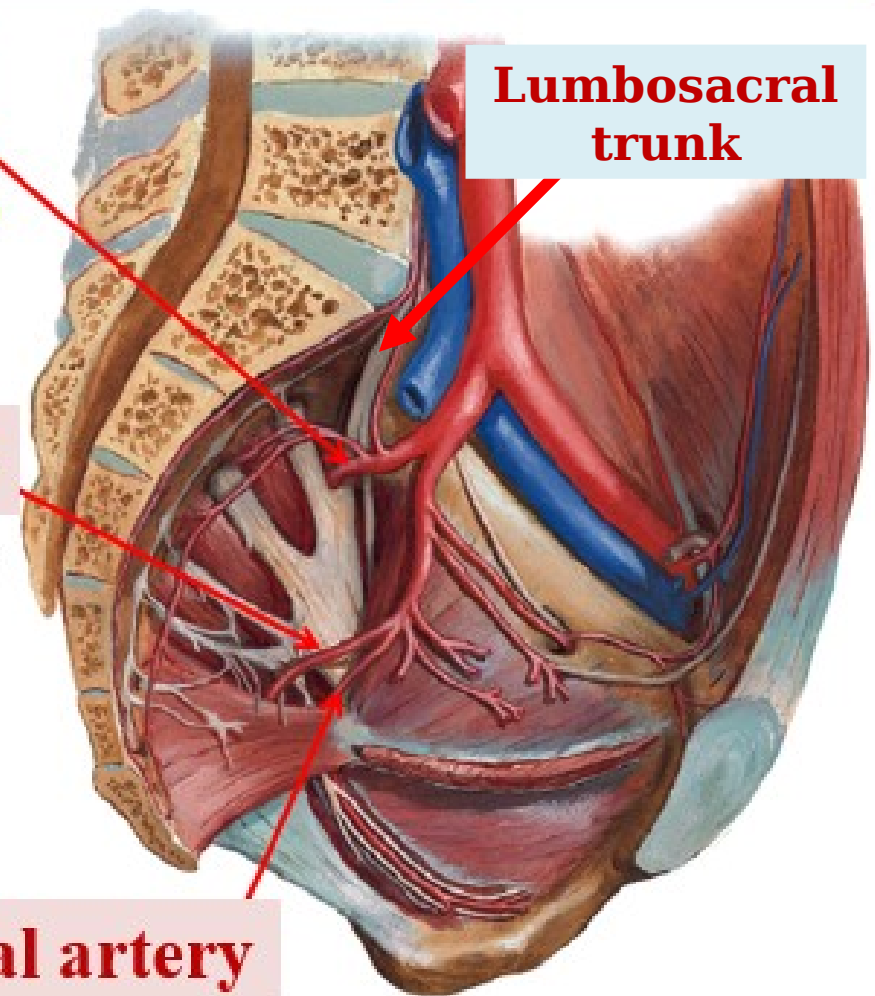
Passes backwards between lumbosacral trunk and S1 or between S1 & S2.

Inferior gluteal artery

Passes backwards between S1 & S2 or S2 & S3.

Internal pudendal artery

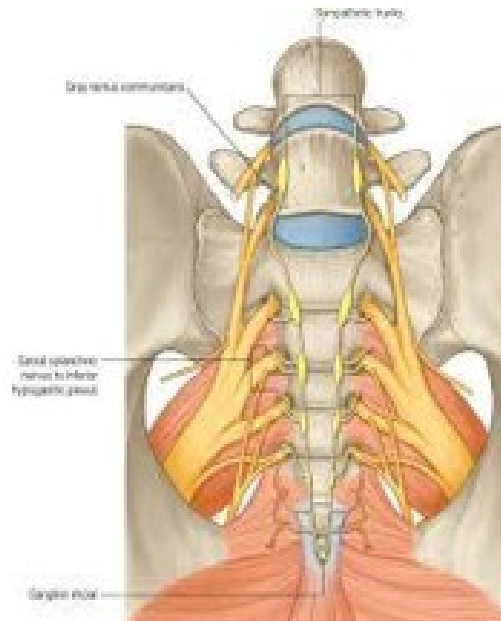
Descend in front of the plexus.

[illegible]

The Sacral Plexus

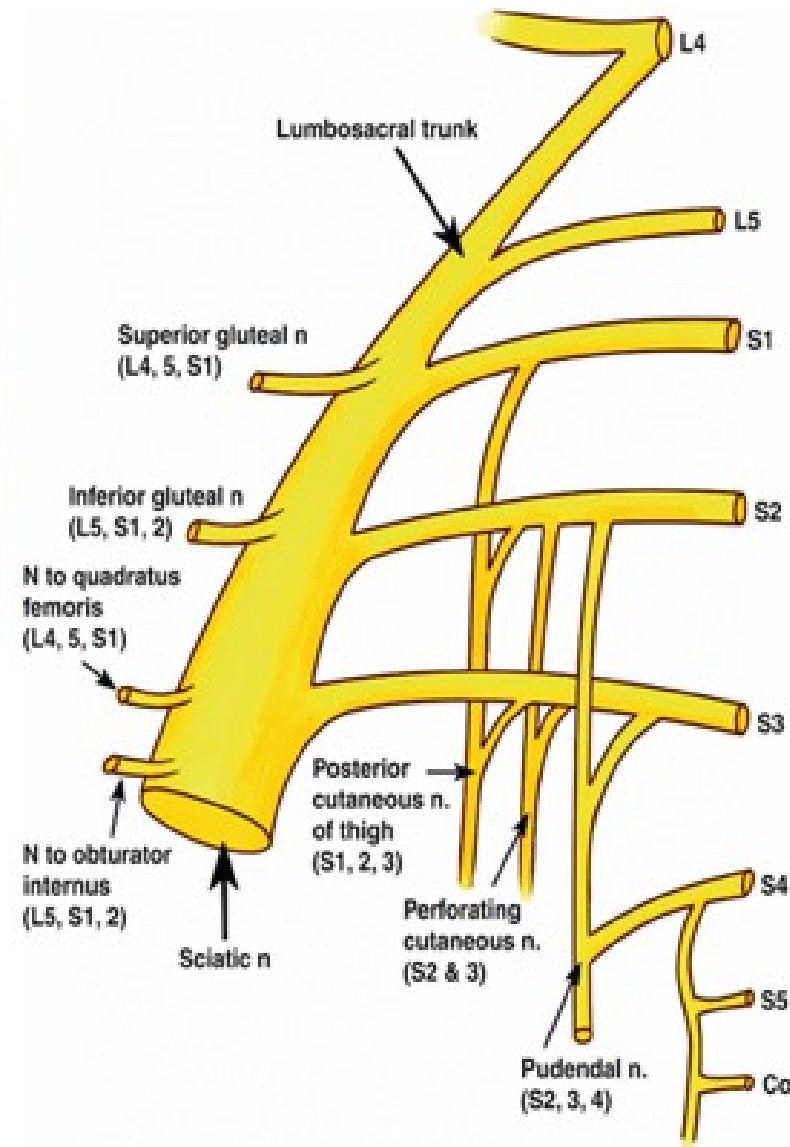
➤ Site:

Infront of piriformis.

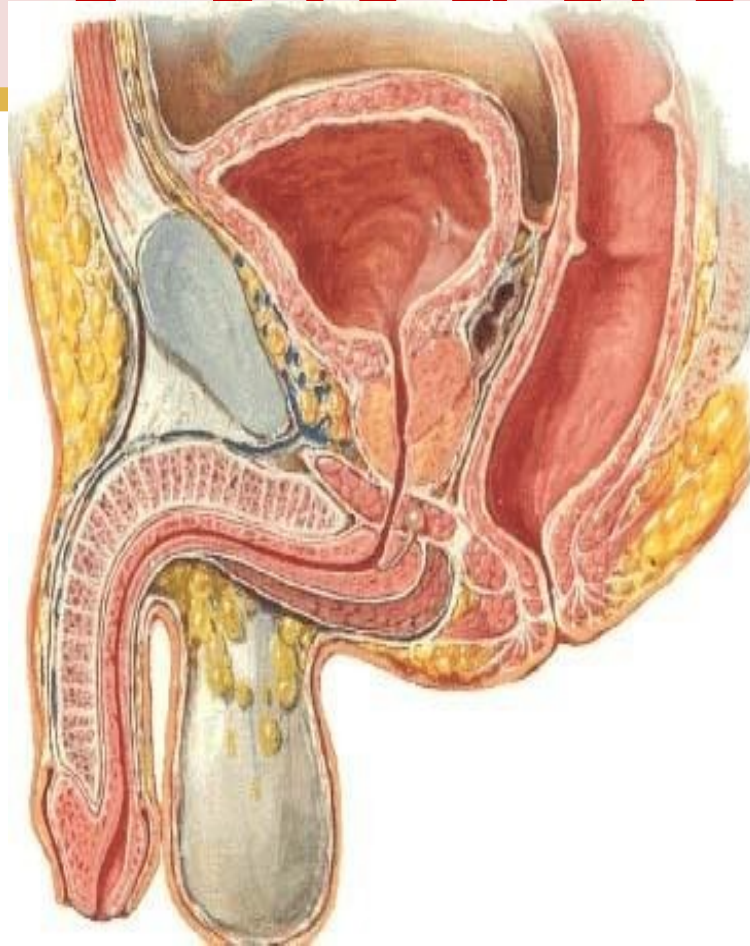


➤ Formation:

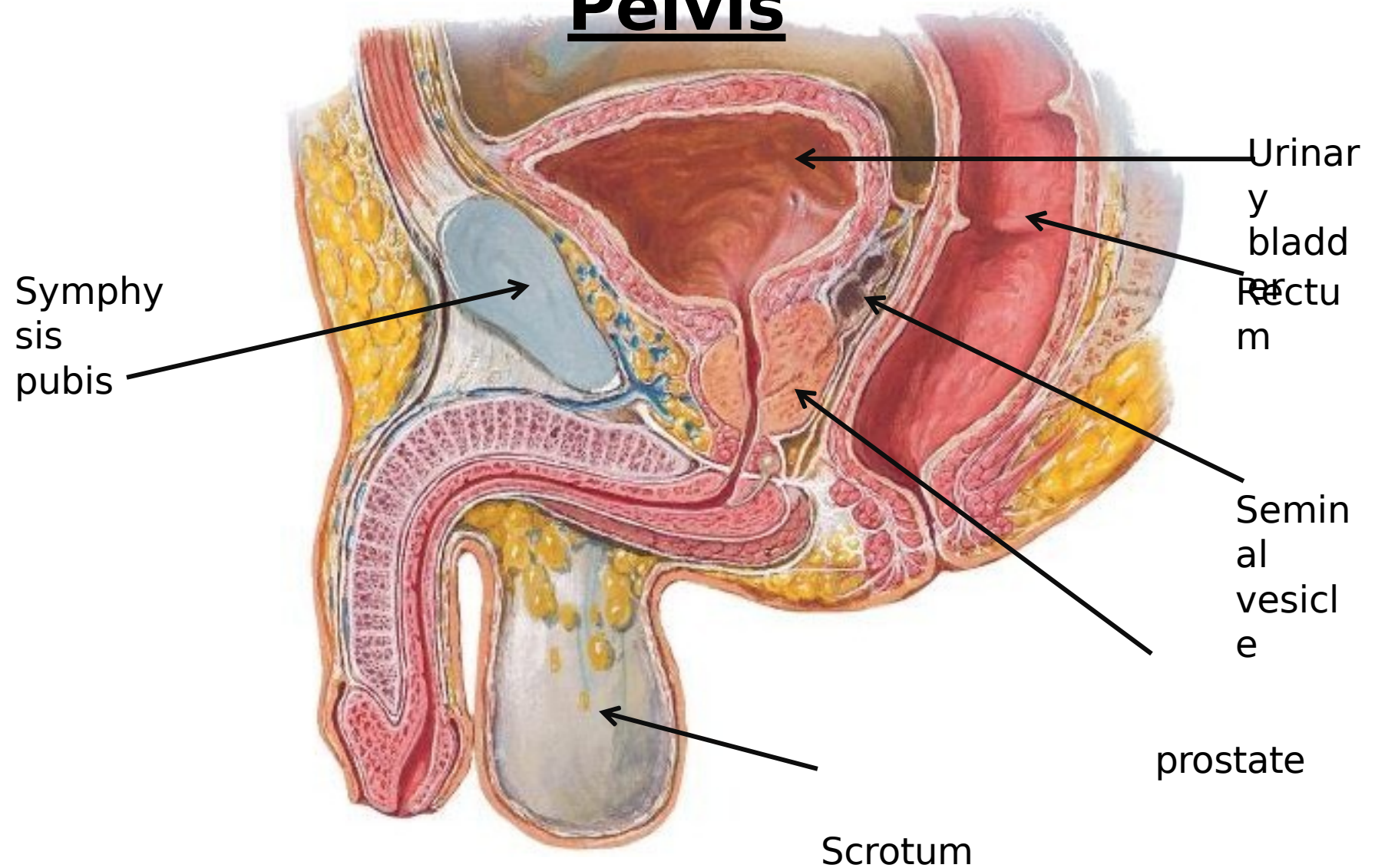
Lumbosacral trunk (L4,5) and (S1,2,3 & upper part of S4).



The Male Pelvis



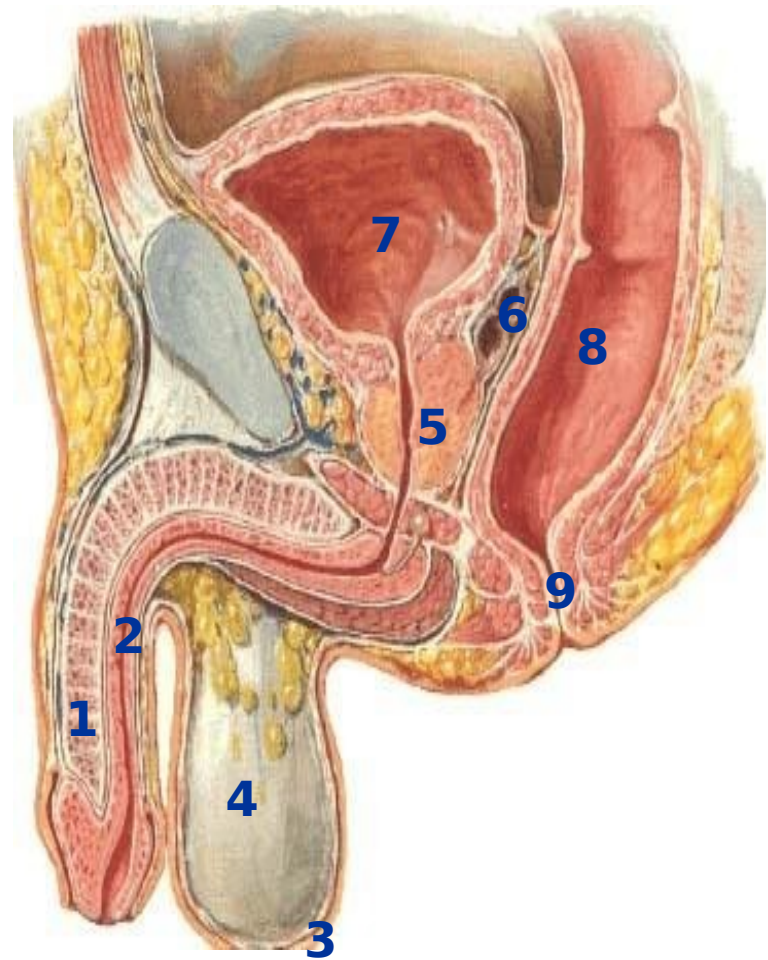
Male Pelvis



The Male Pelvis

Identify:

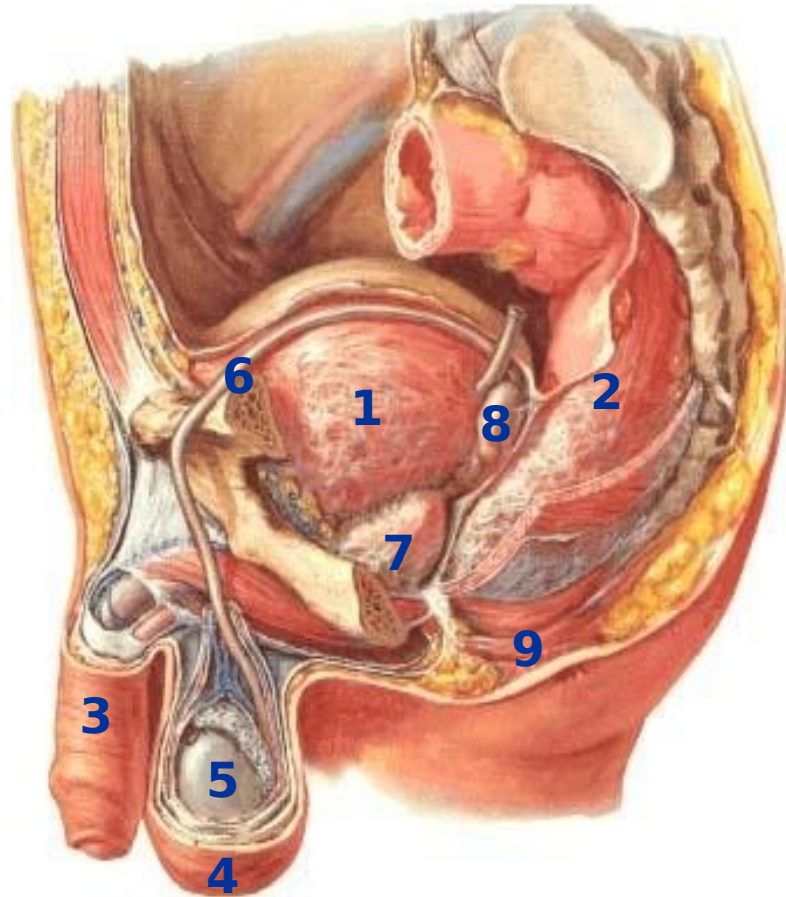
1. Penis.
2. Urethra.
3. Scrotum.
4. Testis.
5. Prostate.
6. Seminal vesicles.
7. Urinary bladder.
8. Rectum.
9. Anal canal.



The Male Pelvis

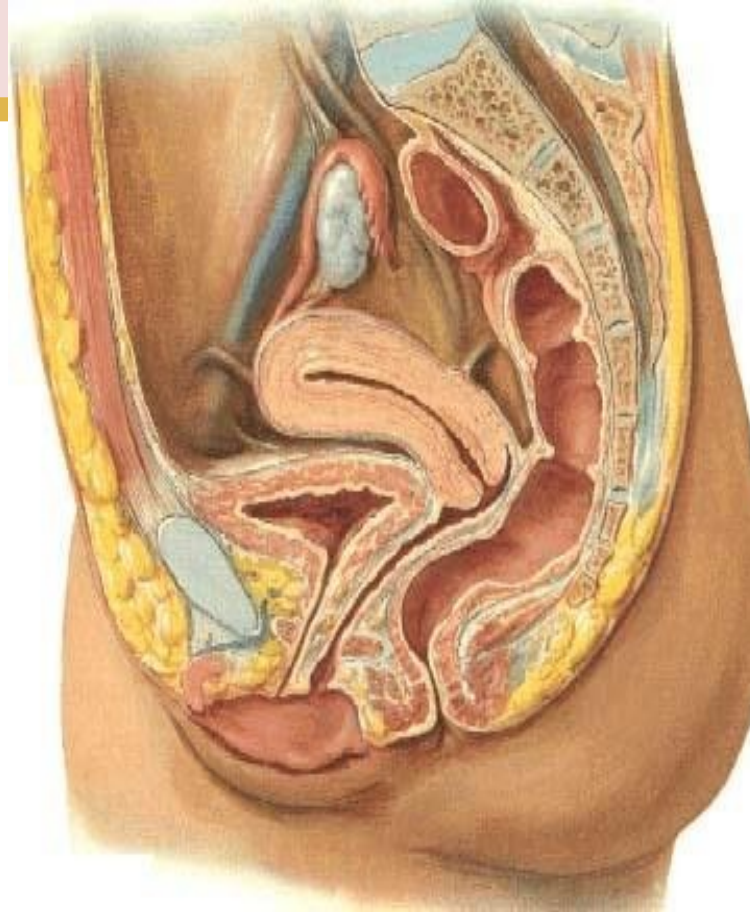
Identify:

1. Urinary bladder.
2. Rectum.
3. Penis.
4. Scrotum.
5. Testis.
6. Vas deferens.
7. Prostate.
8. Seminal vesicle.
9. Anal canal

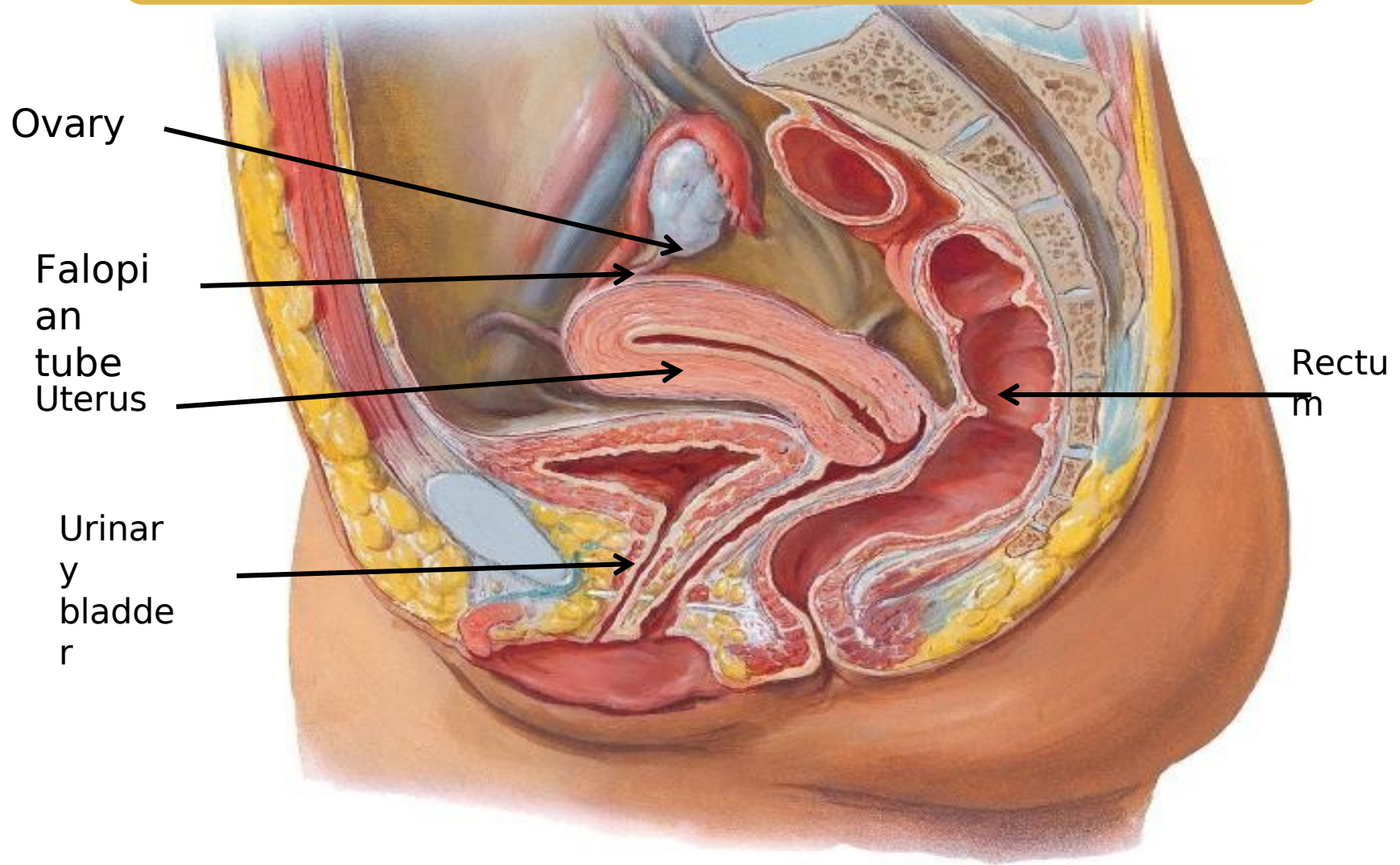


https://www.google.com.sg/search?hl=en-EG&tbs=simq:CAQSMwIjC0SpCh-B4MMajwLELCmpgwaYggpcAMSKM4JwnQCdIGtQPXCdJlOoBHqA8cJ_1D-NlfGfzP-PmZm6U0UAzkjoAm1Kclt50nkcM5Fyxjm4tlJsHDIUy8qdcd8AzXvWPhl7Yp7HqNxsxh1CSlF6L2ThaiAEADAsQjq7-BC-KCcgoANetudciGwwLEJf3twQkqhweKaogFeYm9uzdqdlJPDCGoIL20vMDfIOATIKFoWaFghcnTap7Yp7AwoKCC9tLz5NV9uChYKhBGZvb3TAp7Yp7AwoKCC9tLz5NMW4xChwKCW9szmFjdGlvtbtqlPYDCwojL20vMEDE0eTuZch4KDGjsb29khHZlc3NBnlBqJlFYDC0gl20vMGNFMTjMsq=saagittal+external+spermatric+fascia&tbm=isch&sa=X&ved=2ahUKEwiEUMPHOKzoAHXimisKHf9OA-cQwg4oAHoeECACIQ

The Female Pelvis



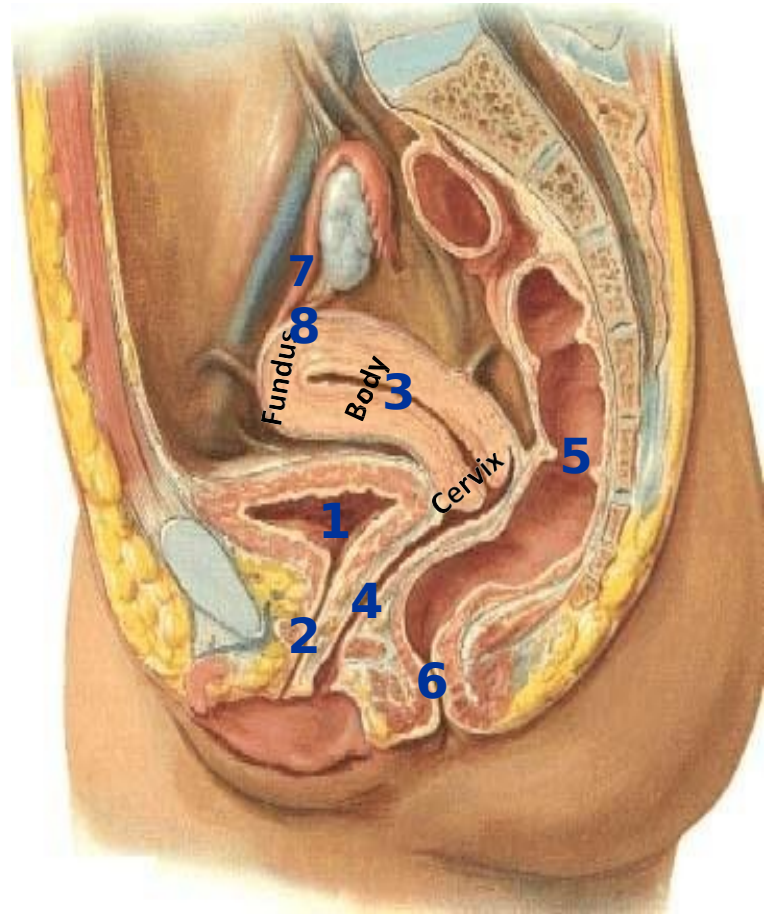
The Female Pelvis



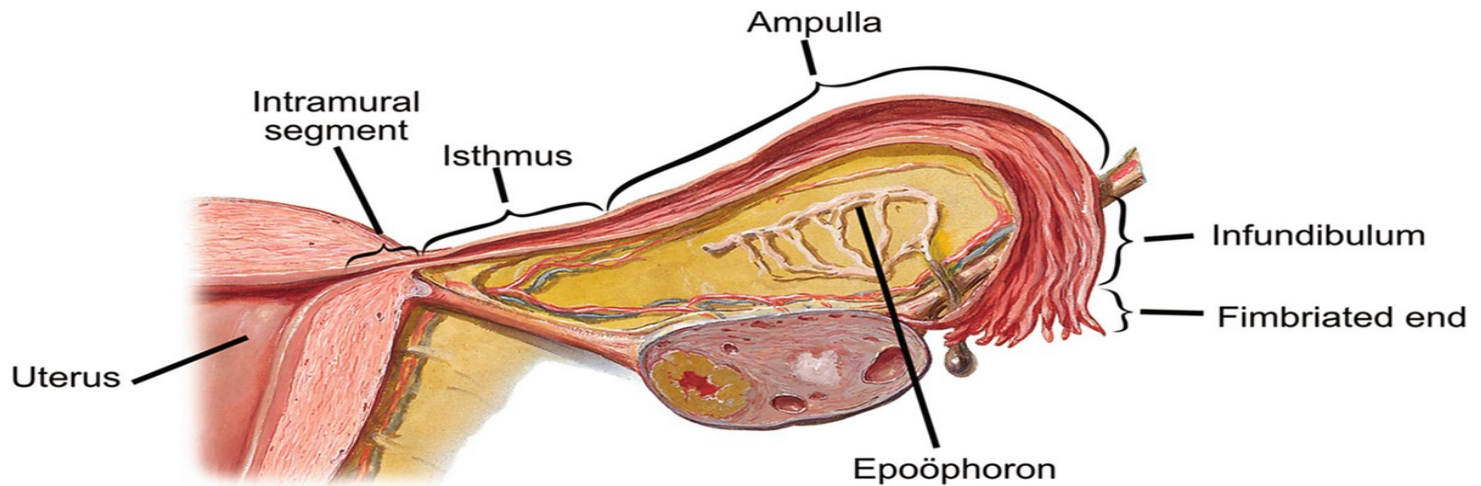
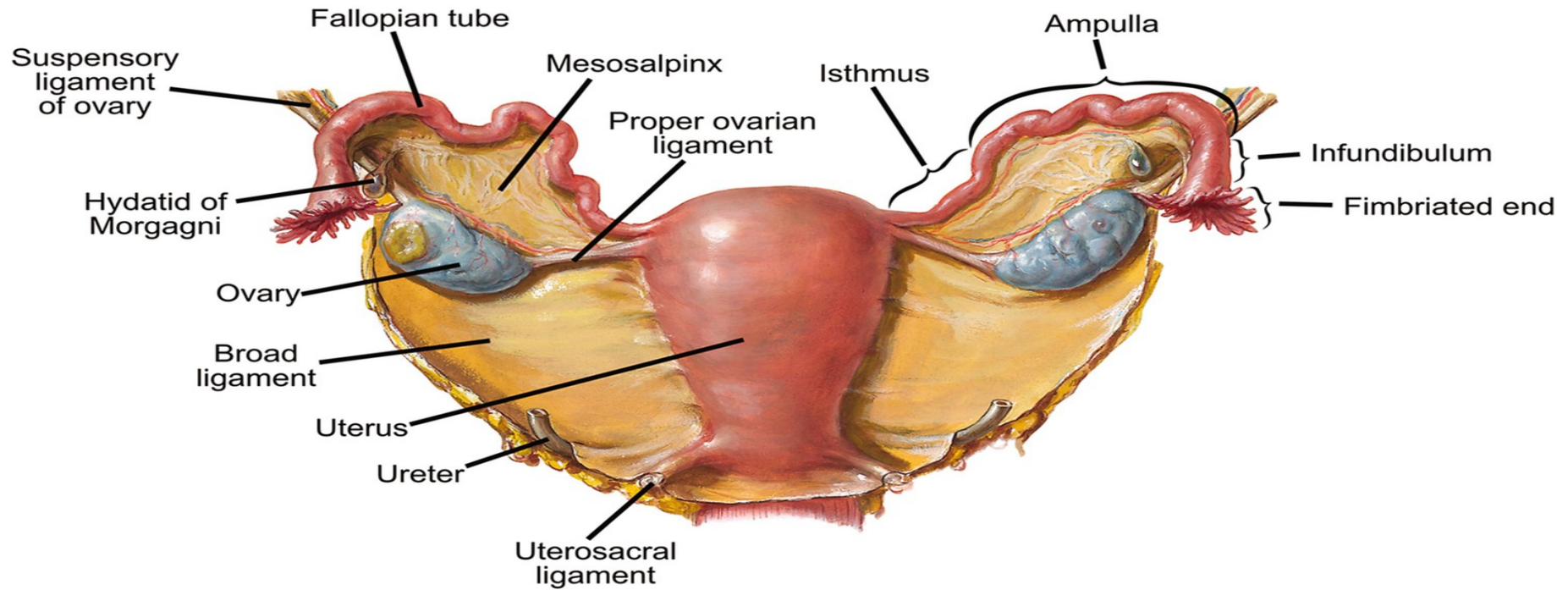
The Female Pelvis

Identify:

1. Urinary bladder.
2. Urethra.
3. Uterus (has 3 parts; fundus, body & cervix).
4. Vagina.
5. Rectum.
6. Anal canal.
7. Uterine (Fallopian) tube.
8. Ovary.



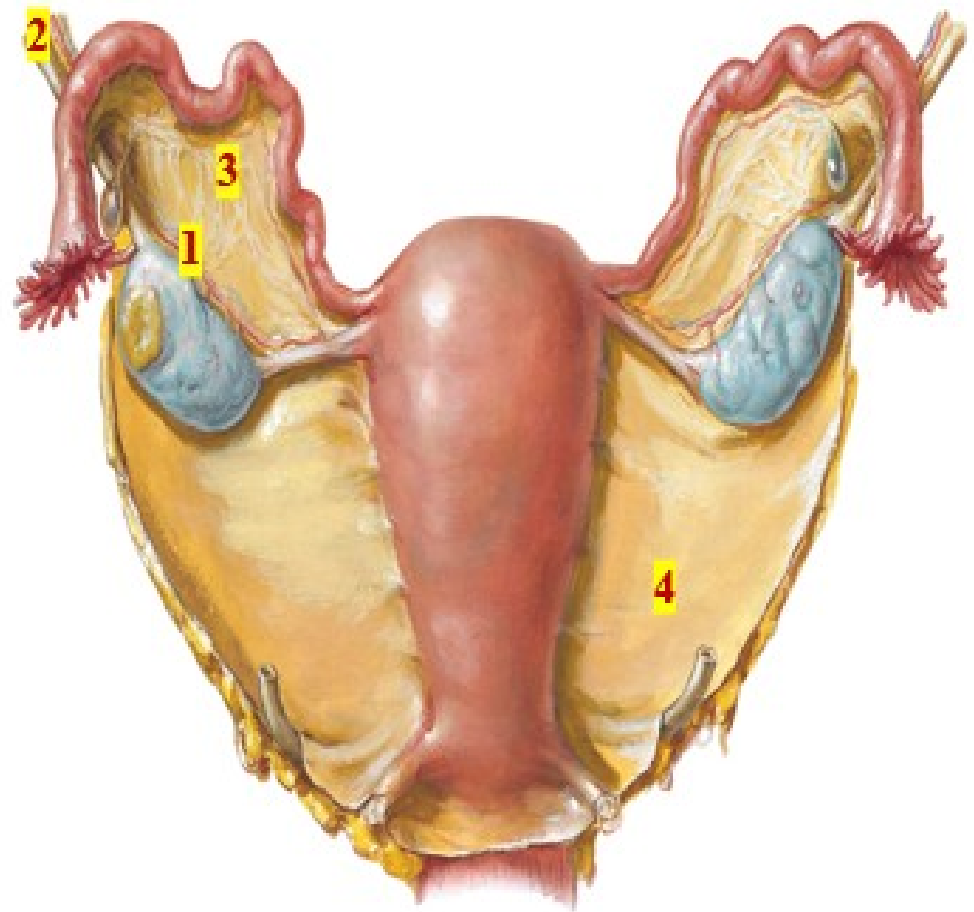
Posterior view



Coronal section

Parts of the Broad Ligament

1. **Mesovarium**
(mesentery of the ovary)
2. **Suspensory ligament of the ovary**
3. **Mesosalpinx**
(mesentery of the tube)
4. **Mesometrium**
(mesentery of the uterus)



Thyroid Gland



Arterial supply:

- Superior thyroid artery
- Inferior thyroid artery
- Thyroid ima artery

Venous drainage:

- Superior thyroid vein
- Middle thyroid vein
- Inferior thyroid vein

Sup. Thyroid artery

IJV

Inf. Thyroid artery

Brachiocephalic vein

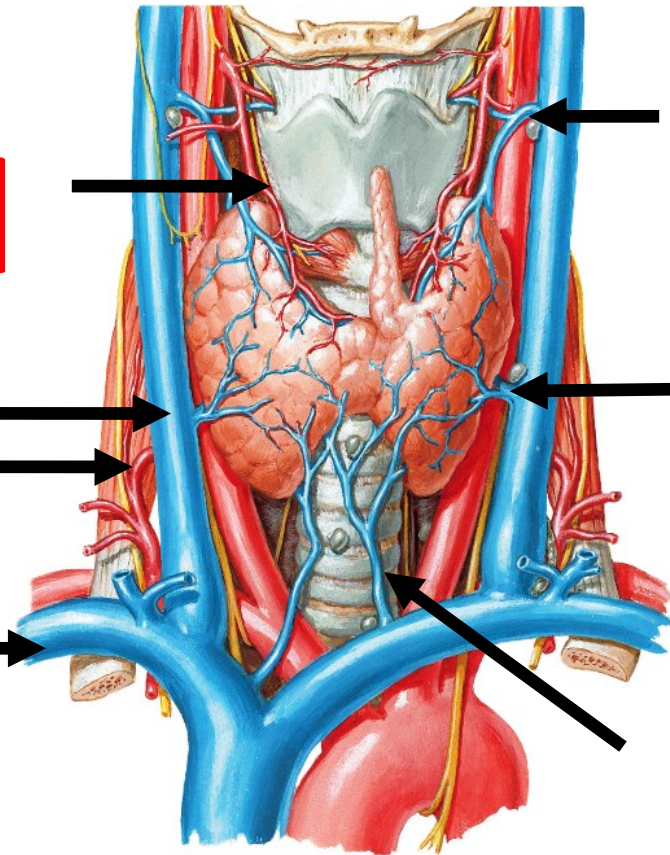
Sup. Thyroid vein

artery

Middle thyroid vein

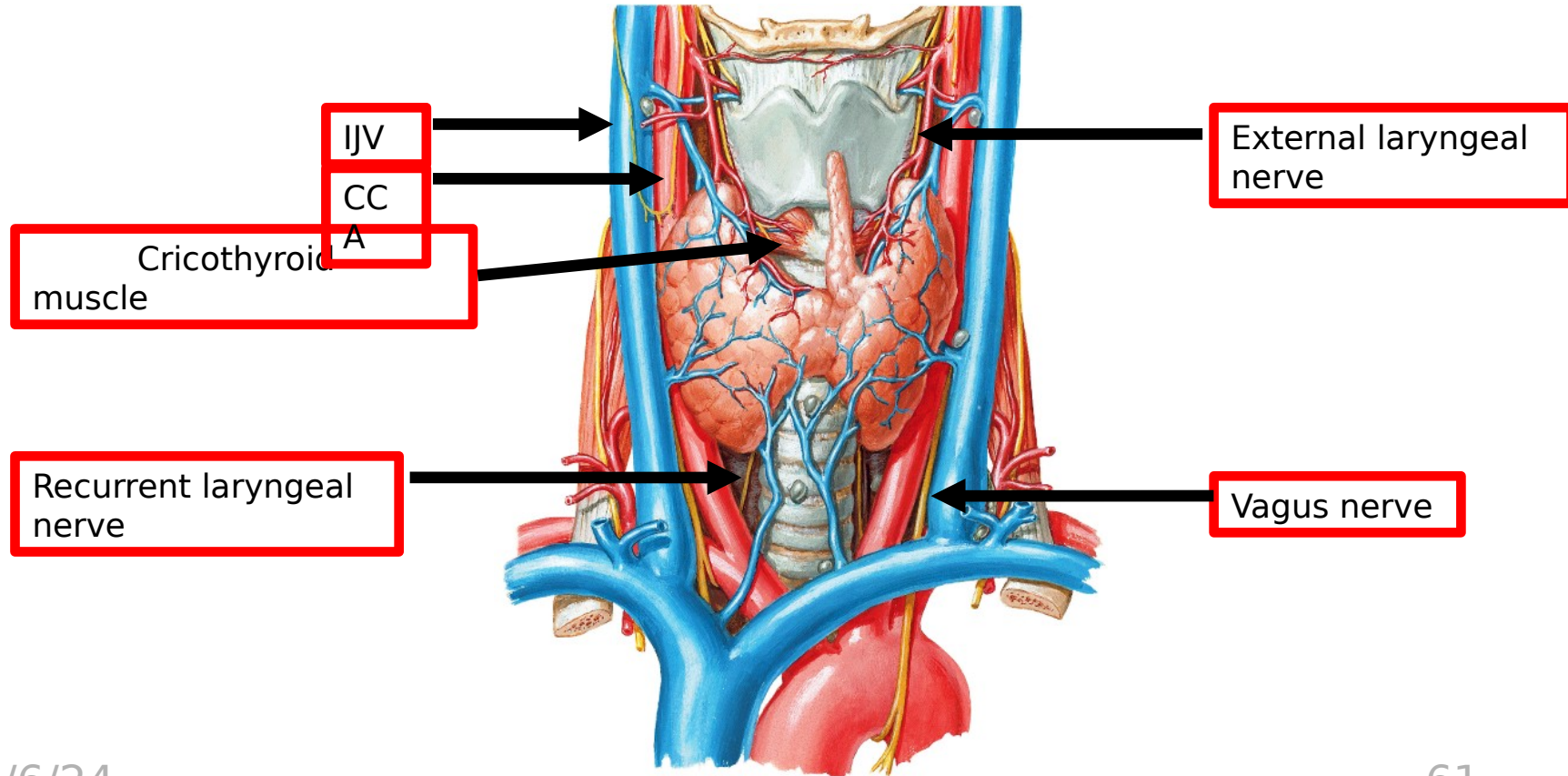
vein

Inf. Thyroid vein

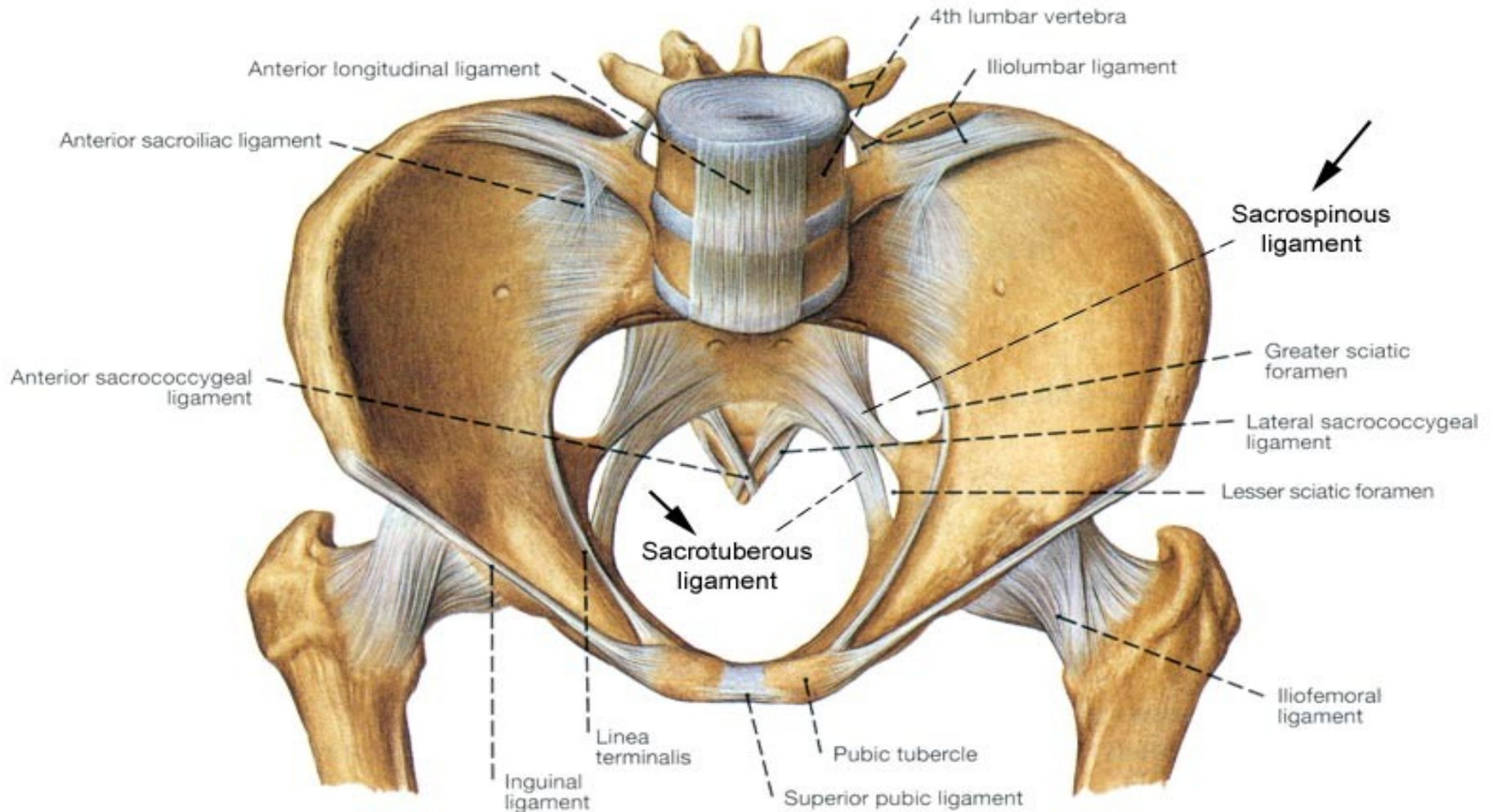


Anatomy Department

Thyroid Gland



The Bony Pelvis



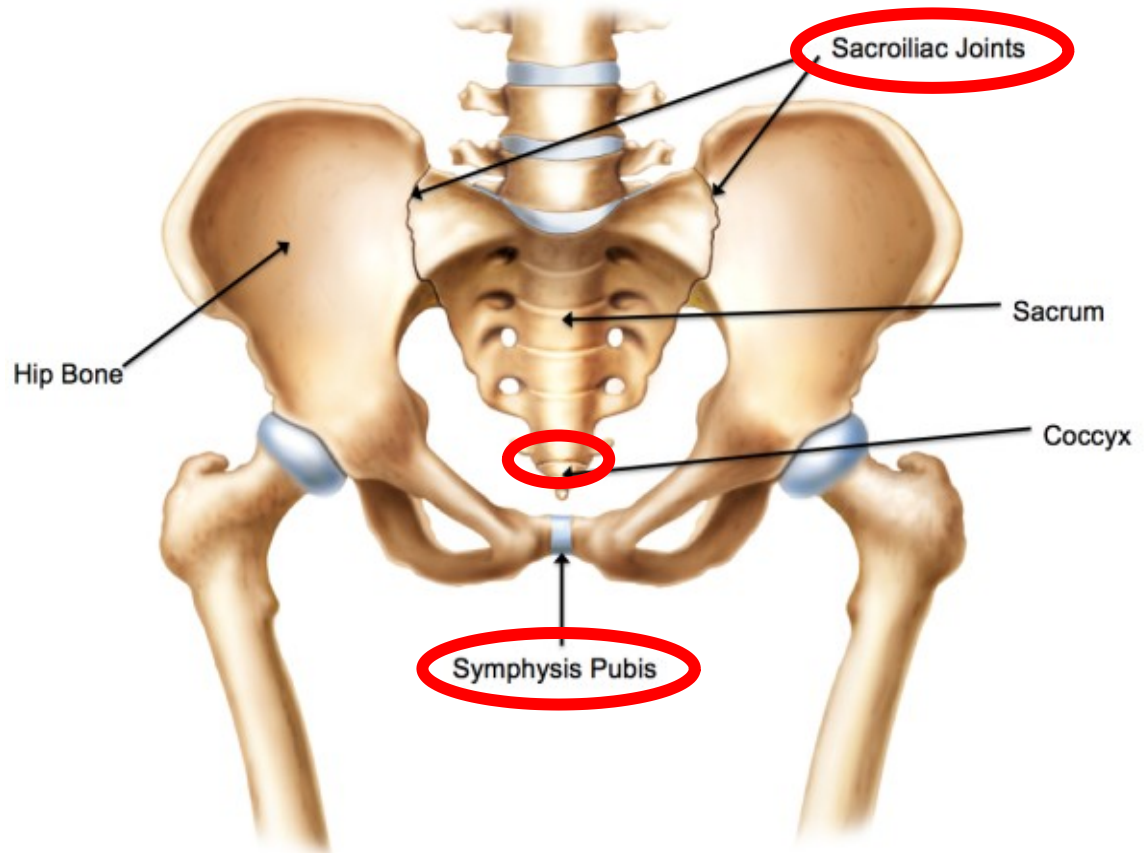
The Pelvic Joints

1. Sacroiliac joint

(plane
synovial)

2. Sacrococcygeal joint (Secondary cartilaginous)

3. Symphysis pubis (Secondary



Part III



CBoKcGglARIEA0PQo
QwLEJ3twQkaigEKGg
oH2GhLz3JhbdqllPYD
CwJL20VM2DJMG0Y
ChgKBWxpdmVyzqW
I9gMLCgkvbS8wM19
wZm4KFwoFbmVyd
mXapYz1AwoKkccnLz
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9hdNqliPYDCgolL20v
MG1oeTQKHwoMY29
S3jmdWxuZXNZ2q
W19gMLCgkvbS8wMz
B6bGYM&q=pelvic +

Internal Iliac Artery

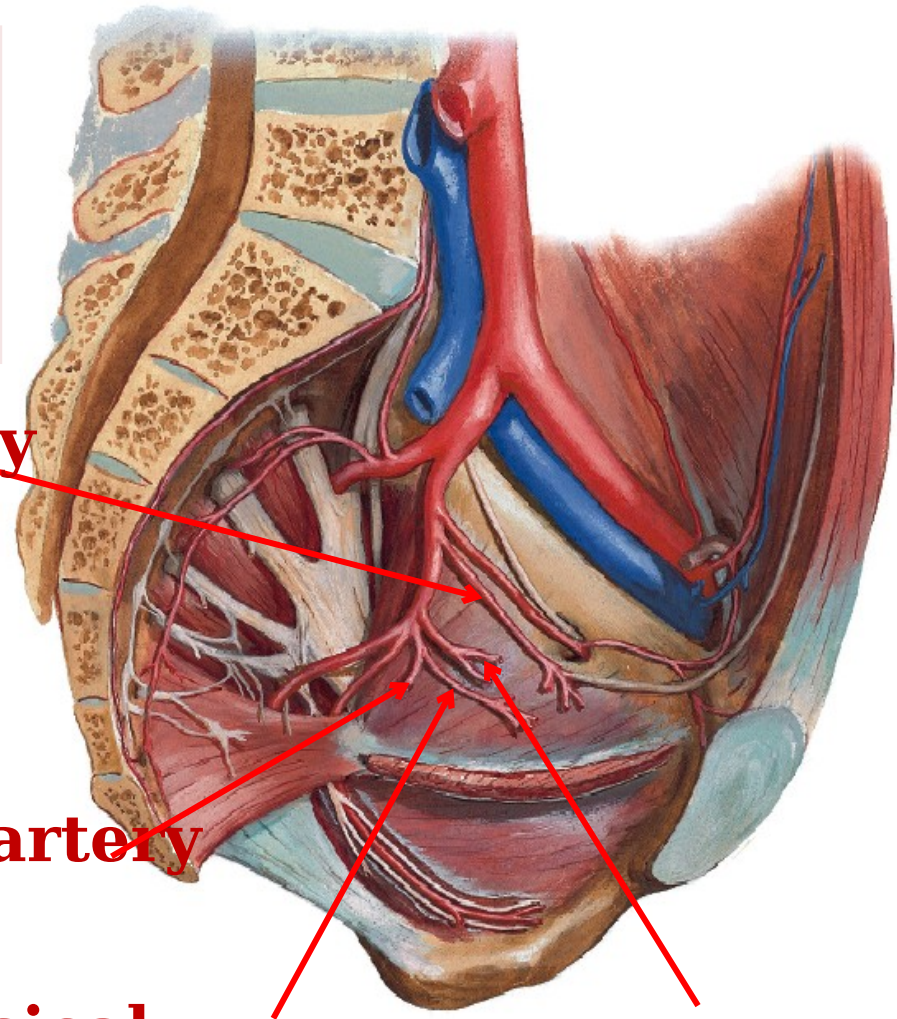
Branches of anterior division (visceral branches):

1 - Umbilical artery

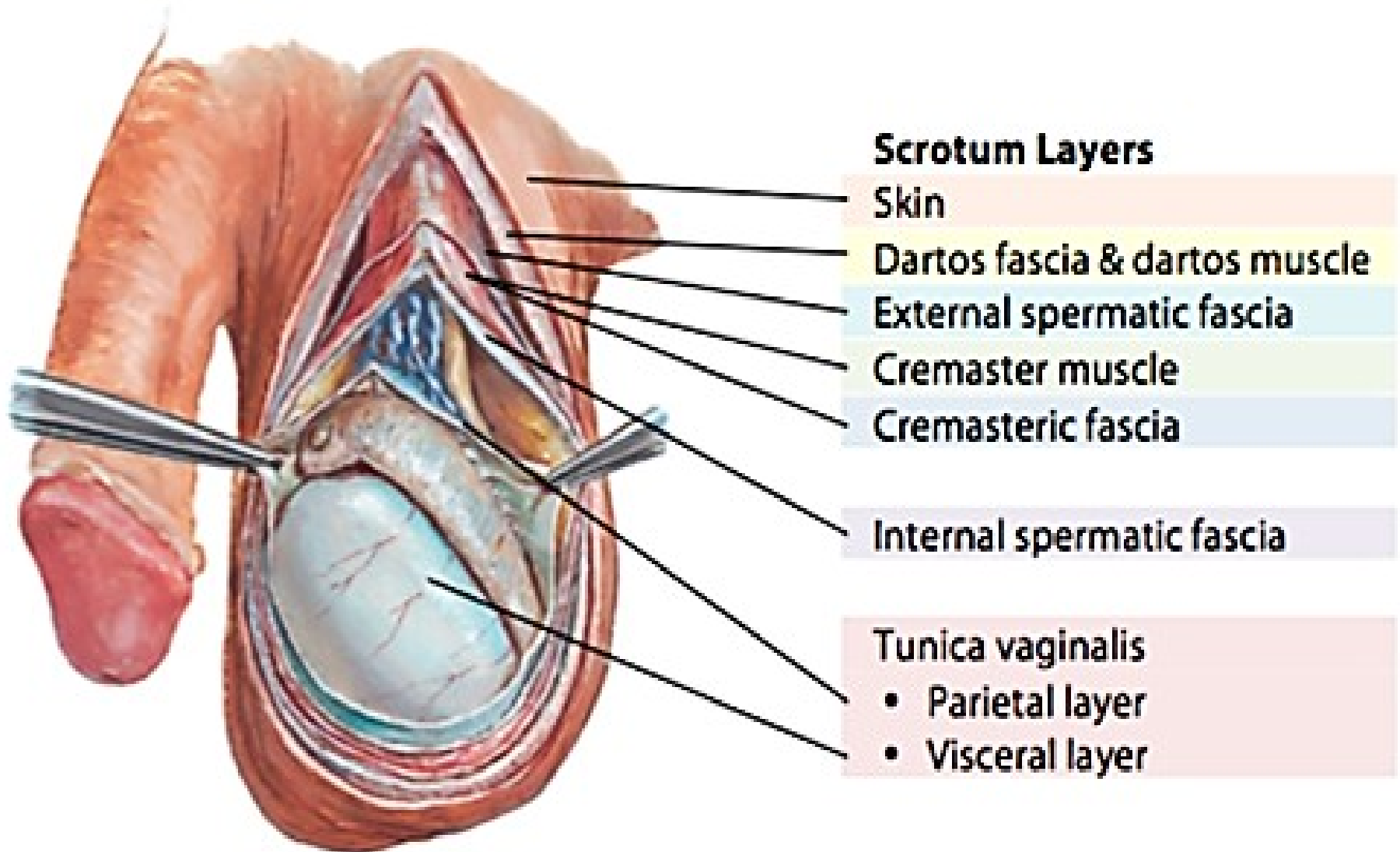
2 - Middle rectal artery

3- Inferior vesical artery or Vaginal artery (female)

4- Uterine artery (female)

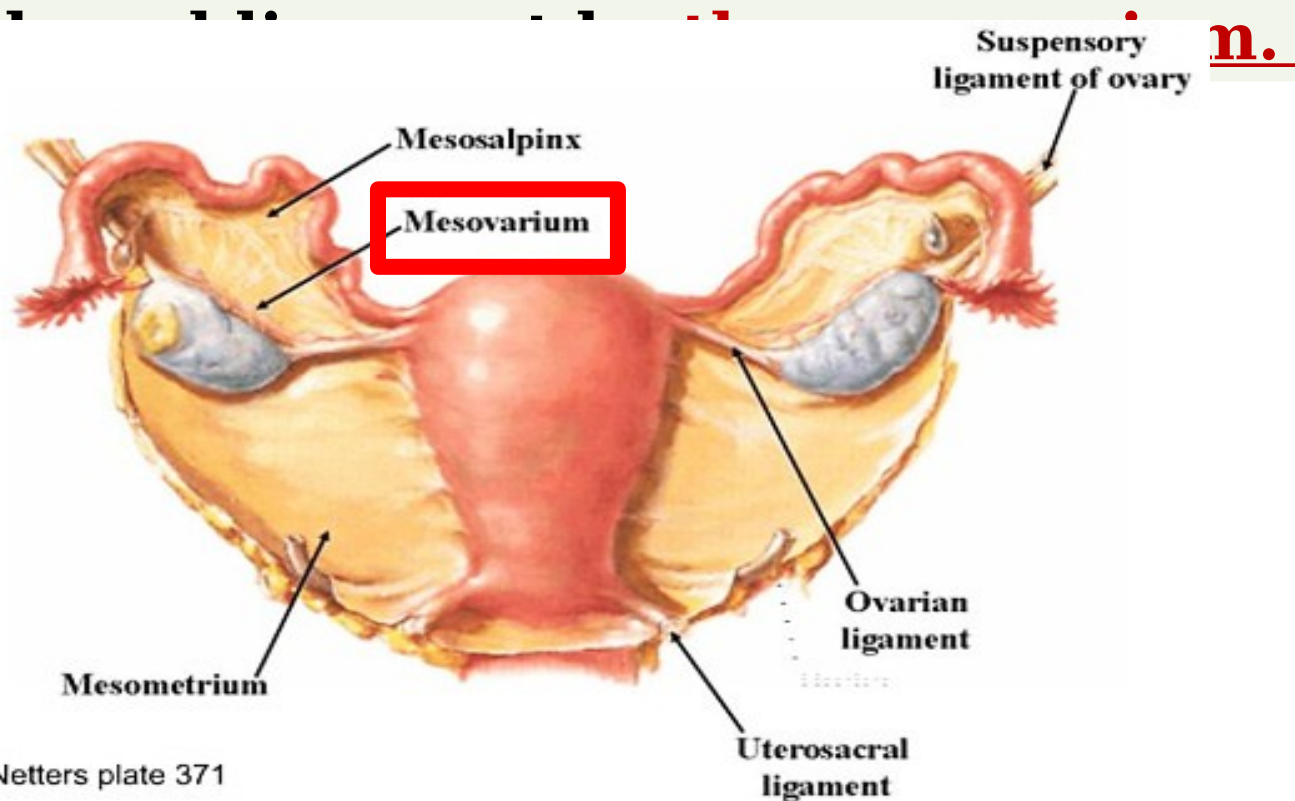


Wall of the Scrotum



The Ovary

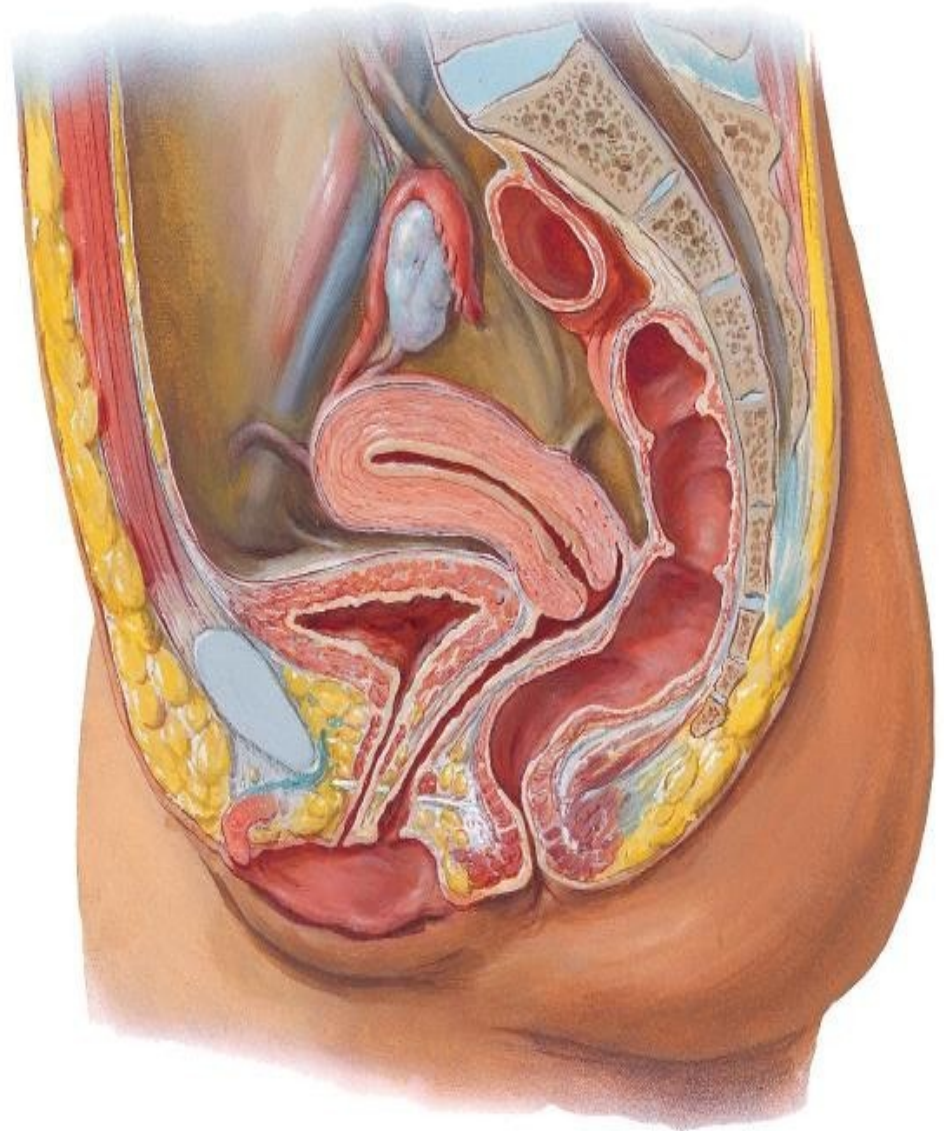
- It lies below and behind the lateral part of the uterine tube.
- Attached to the upper (posterior) layer of the



Body of the Uterus

- **Fundus.**
- **2 surfaces (anterior and posterior)**
- **2 lateral margins.**

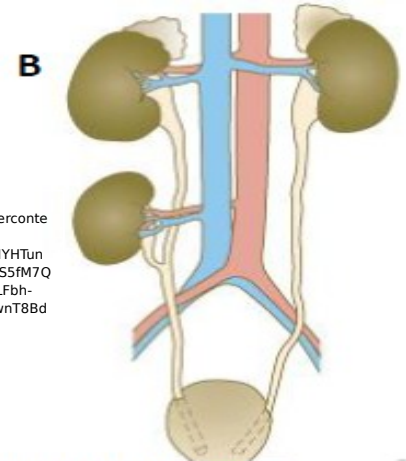
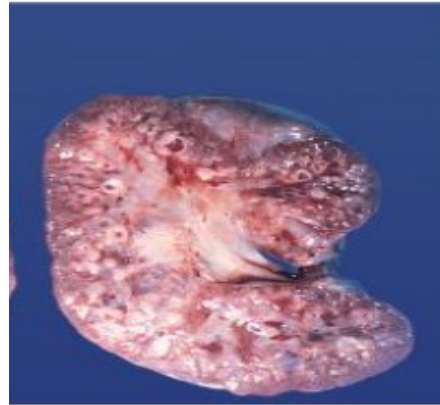
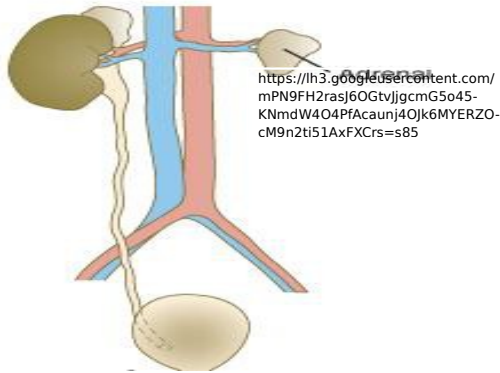
Female Reproductive System



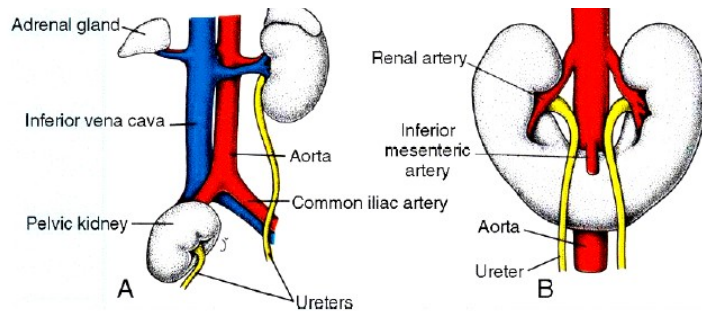
Congenital Anomalies of the Urinary system

Anomalies of the Kidney

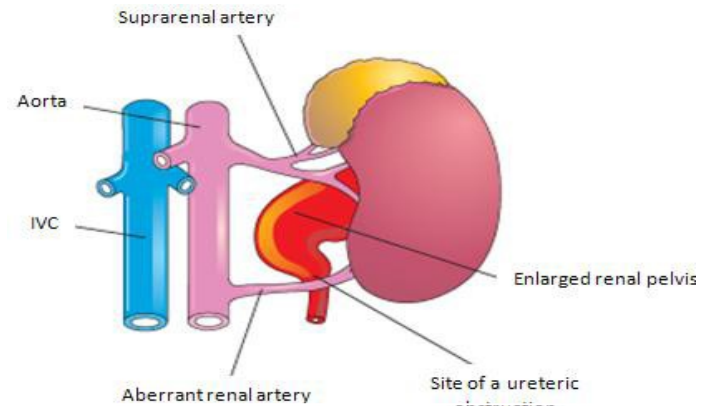
Left sided renal agenesis



Right pelvic kidney – B) horseshoe kidney



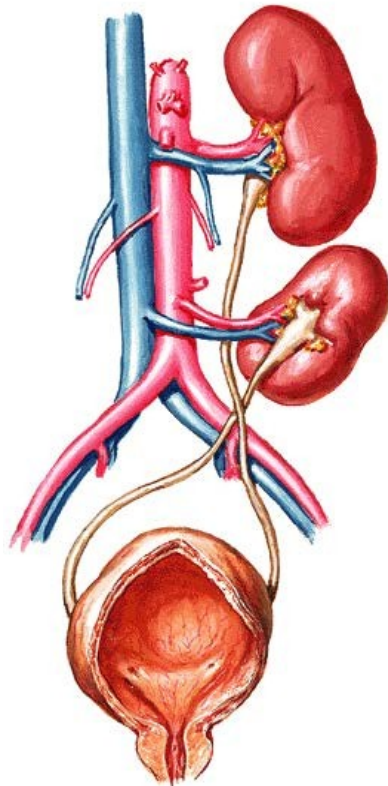
Congenital polycystic kidney – B) Right sided double kidney



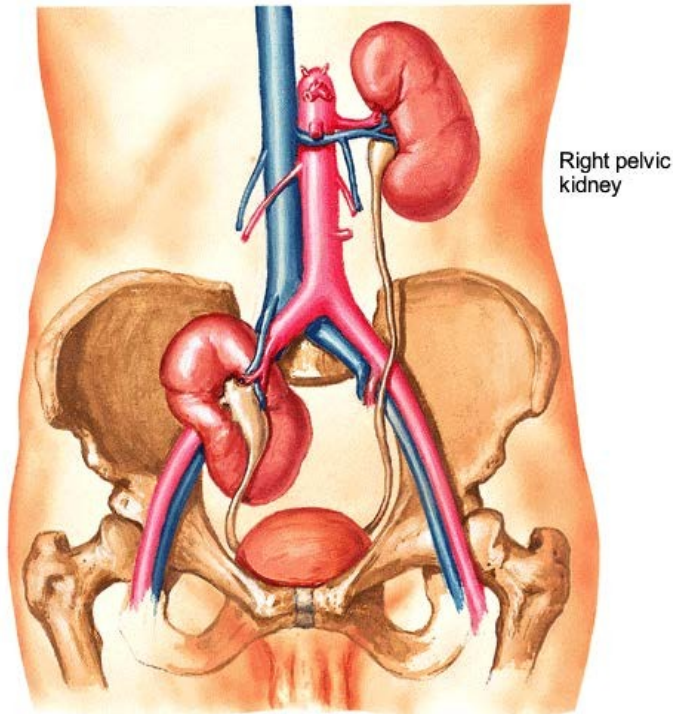
https://www.google.com/eg/search?hl=en-EG&tb=smg:CAQSoqJPT0EvnhCDXkaIgLLELCMPwgaYgpgCAMSKNwdpQqbCjYisB5dFNsdqRSiCq4UuDS3NM42-zybPwv_14TPMnuc38D8aMoknZpaZACPCjd6jK7cb-0hjuUK1FyVWvbYUpvseka07Vn0L_1ZBS0_1z8BD6CAEDAsQj7-CBoKCgglARIEI3_1L_1AwLEj3twQkaJgEKGgohZGhZ3jhbdqIPYDCwojL20vMDJ2MG0yChQKA2FydNqIIPYDCQoHL20vMGpqqdwfCgxb2xvcmZ1bG5ic3PapYj2AwsKCS9tLzAZMHpsZgofCg1odW1hbiBhbmF0b2152qWl9gMKCggbvS8wM2dnOQoYcGv3cmIzdNqIIPYDCwojL20vMDFqNDhiDA&q=rein+en+fer+%C3%A0+cheval&tbm=isch&sa=X&ved=2ahUKEwiGy-qA25roAhVjpisKWHwNBfoQw94oAhoECagQjg

Kidney Rotation and Migration Anomalies

Ectopia of the kidney



Crossed ectopia of the right kidney

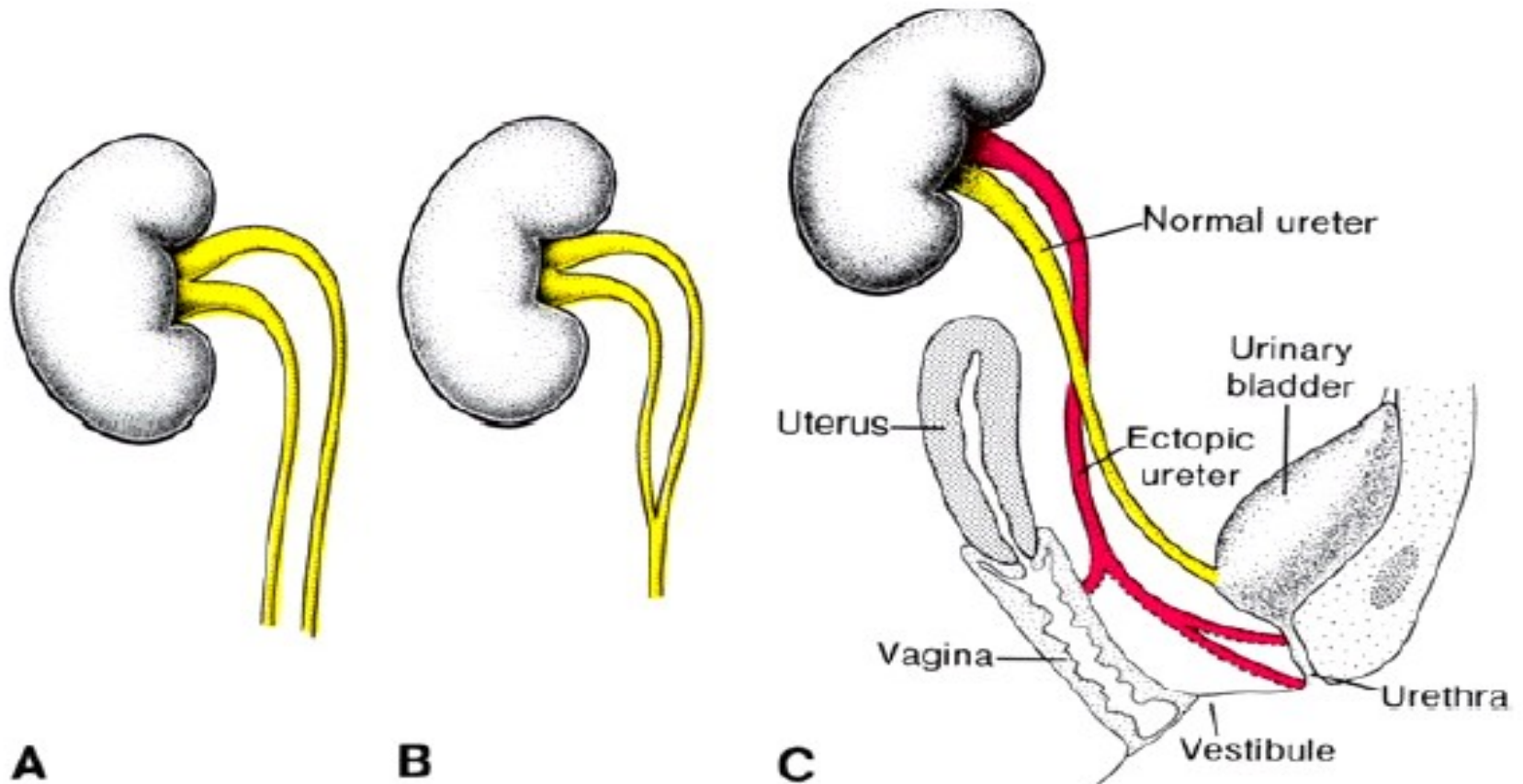


Right pelvic kidney

https://www.google.com.eg/search?hl=en-EG&tb=smg:CAQSpQJlqWaLuKgar10amQILELCMpwgaYpggCAMSKOUDzgnQCeDzwnzCdEJ1QbiA4QI_1D-3NOAz-zz9P5E6kjbPt4sIDoaMixSdfIS3AaPM3ZB5976xtULZuCiB5P8Waotn_1Ke1dyeiN3gyzNtU13hMlyJ1dmDLSAEDAsQjq7-CBoKCgglARIEMMVdiAwLEJ3twQkakQEKGgoHZGihZ3jhbdqliPYDCwojL20vMDJZMG0yCiIKD21IZGJYWGJvbmXapYj2AwoKCC9tLzAxYjkyChckBWhYXJ02qWi9gMKCggvb58wOTVfbgoeCgtiaWNiCHMgyY3VybNqliPYDCwojL20vMDQxa3pzDA&q=renal+ectopia&tbm=isch&sa=X&ved=2ahUKEwixg7iB25roAhVtsYsKHeasDacOwa4oAHOECAoOla

https://www.google.com/gs/search?hl=en-EG&bs=simg:CAQ5eAJl8MGs12wIqCqAAILCmPwgaYgpgCAMSKOdSgmgFM4jknArqA6kUrnRShAsg5_1D_3NP0_1_zEedLw_14D0RgOrGd0BVC0fCV8TtYe09CfAaH5P3jLEAixEedLwAPQDR9NHRvHdlDusBVO1m8iBNkbnW6iAEADAoCq7C-B0kCqGARiEdwQWkEJ3wQkA0EKIqgPbWkAwK8HbCbpfWFnA5w5n2qWl9MGclvq58WmWozYJW9GdGHlZ3hZj6ldpYDCv120vDMJ2DmJ2CqgKBWpxwv2yW9i9MGclvq58Wb19w2m4KqA0rD3jpc3p2J7AwwCS9PLz4aQJ4yQeCxbgD9C8BZ2BNzZwZapY2Aw0KfCnLzXj2E2DA6q=renal+hypoplasia&tbm=isch&s=X&ved=2ahUKEw15-M75mAHXKvixK4r5m9R80w0d0ACQfAnC9tL

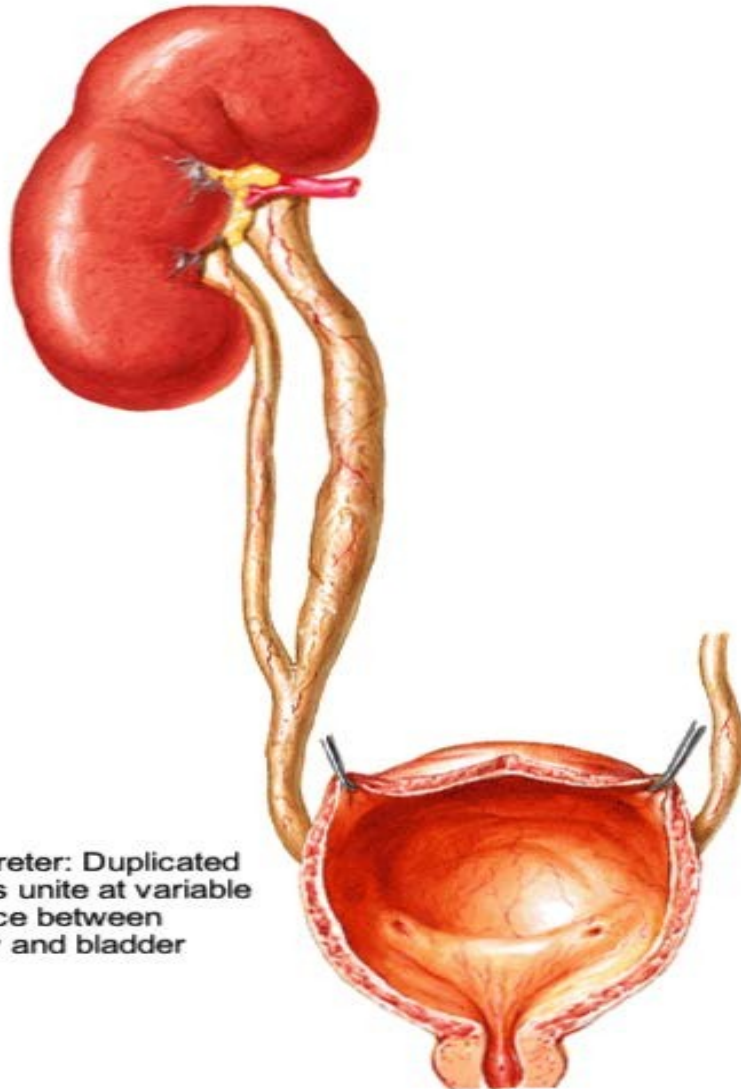
Anomalies of the Ureter



A) Complete double ureter B) Partial double ureter (bifid) C)
Ectopic ureteral openings

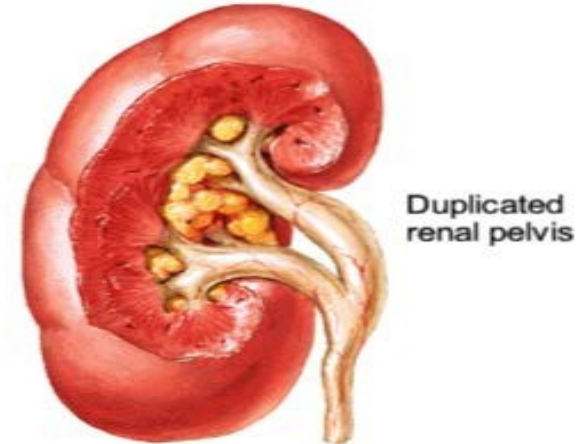
Ureteric Bud Duplication

Incomplete duplication of ureter



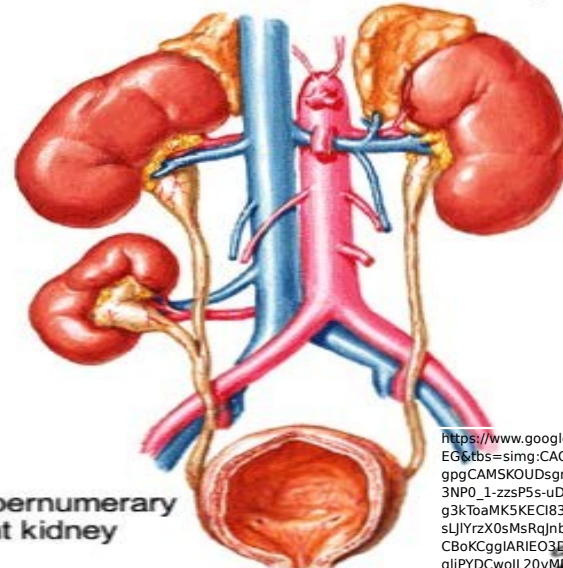
Bifid ureter: Duplicated ureters unite at variable distance between kidney and bladder

Anomalies of renal pelvis and calyces



Duplicated renal pelvis

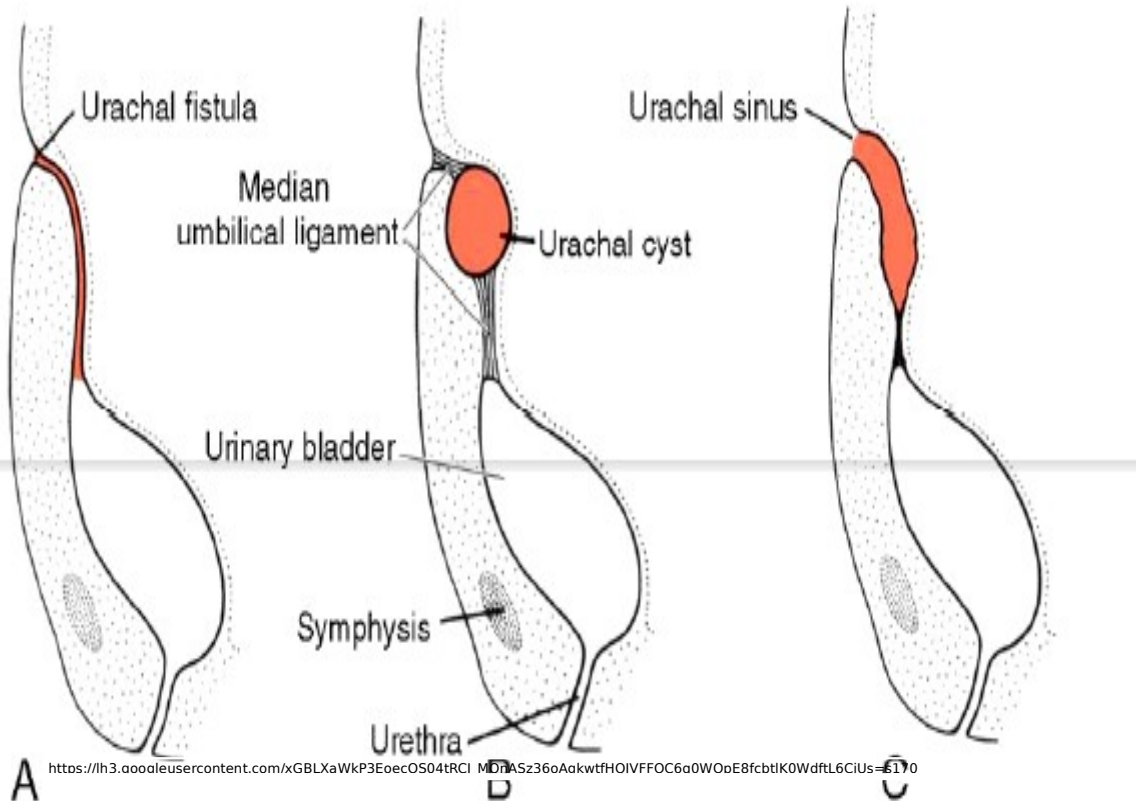
Anomalies in number of kidneys



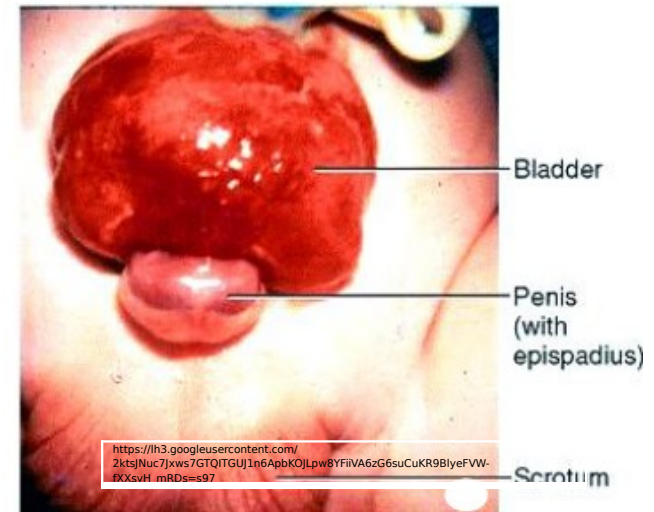
Supernumerary right kidney

https://www.google.com/eg/search?hl=en-EG&tbs=simg:CAQ5qwljPnHwv7m5qfAanwLELCmpwgaYgpgCAMSKOUDsgmdFOoDnAqCpwUzgnPCYcl_1D-3NP0_1-zzsP5s-uDTgM-g3kToaMK5KECI83paPh5fmeE35B0GNqOqi3wGZJNWHyrleSLJIYrzX0sMsRajnbFZ6781dsuDA5oq7-CBoKCggIARIEO3DwOwMJEJtWOkawEKGGgoHZGhZ3JhbdqliPYDCwojL20vMDN4eHAKGgolcGFyYXNpdGxapYj2AwoKC9tLzBiX2w3ChkKB3N0b21hY2japYj2AwoKCC9tLzA5eDh6DA&q=ureter+duplication&tbm=isch&sa=X&ved=2ahUKEWiv48WI25roAhVvwosKHRwYDdaOOwa4oAHoECAoOla

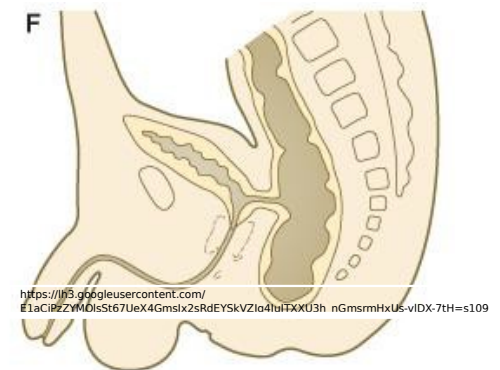
Anomalies of the Urinary Bladder



Patent urachus

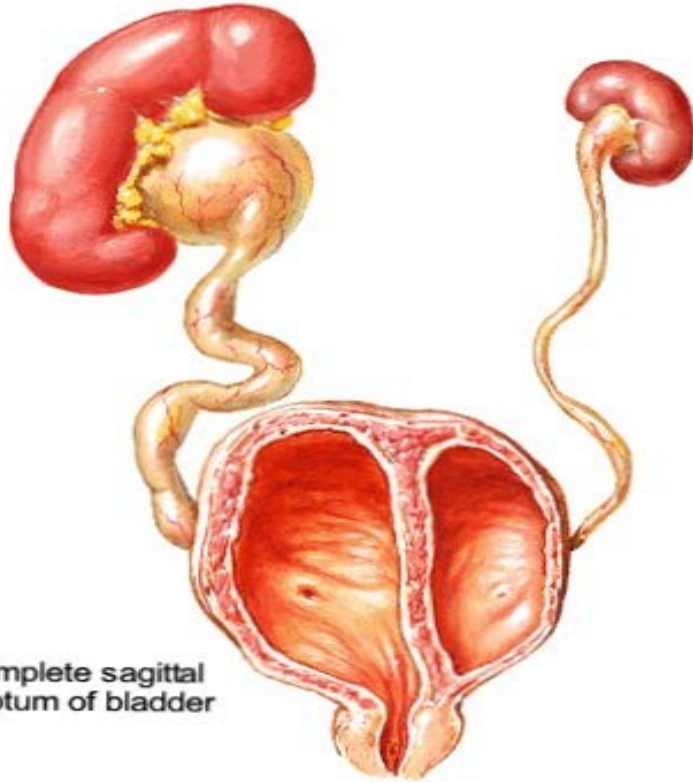


Ectopia vesicae



Recto-vesical fistula

Bladder Anomalies

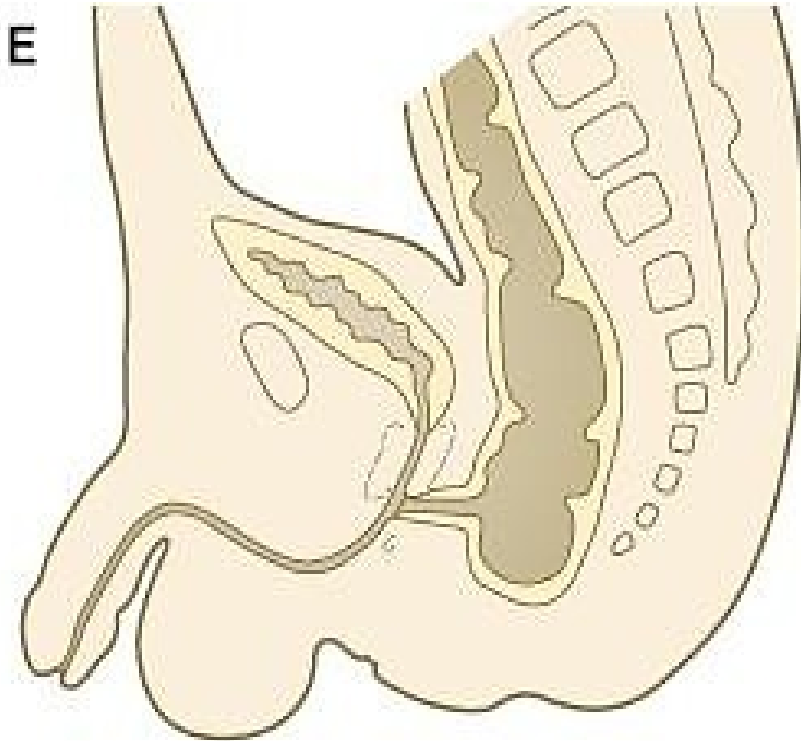


Complete sagittal
septum of bladder

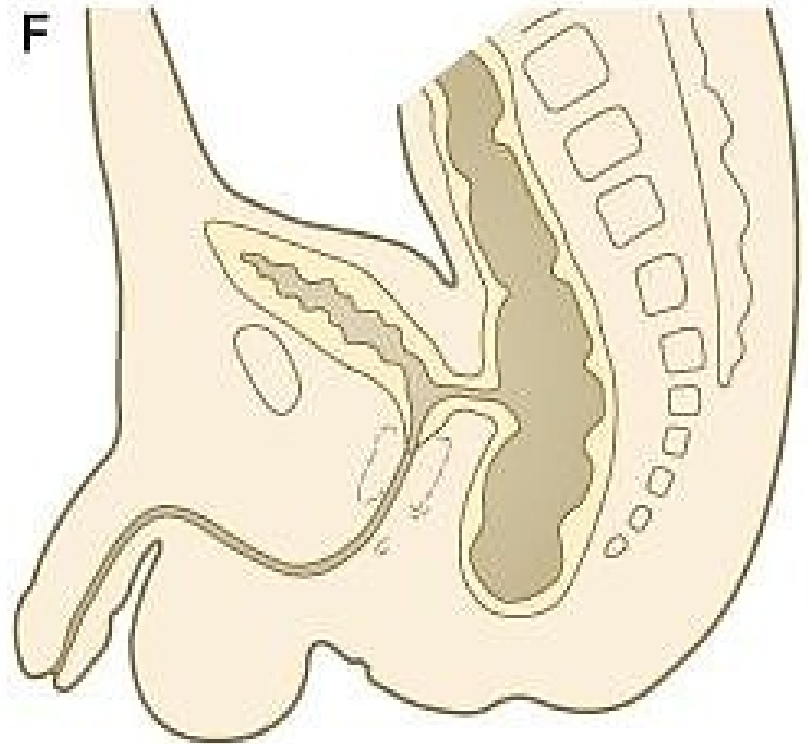
Incomplete septum
of bladder

Incomplete duplication
of bladder

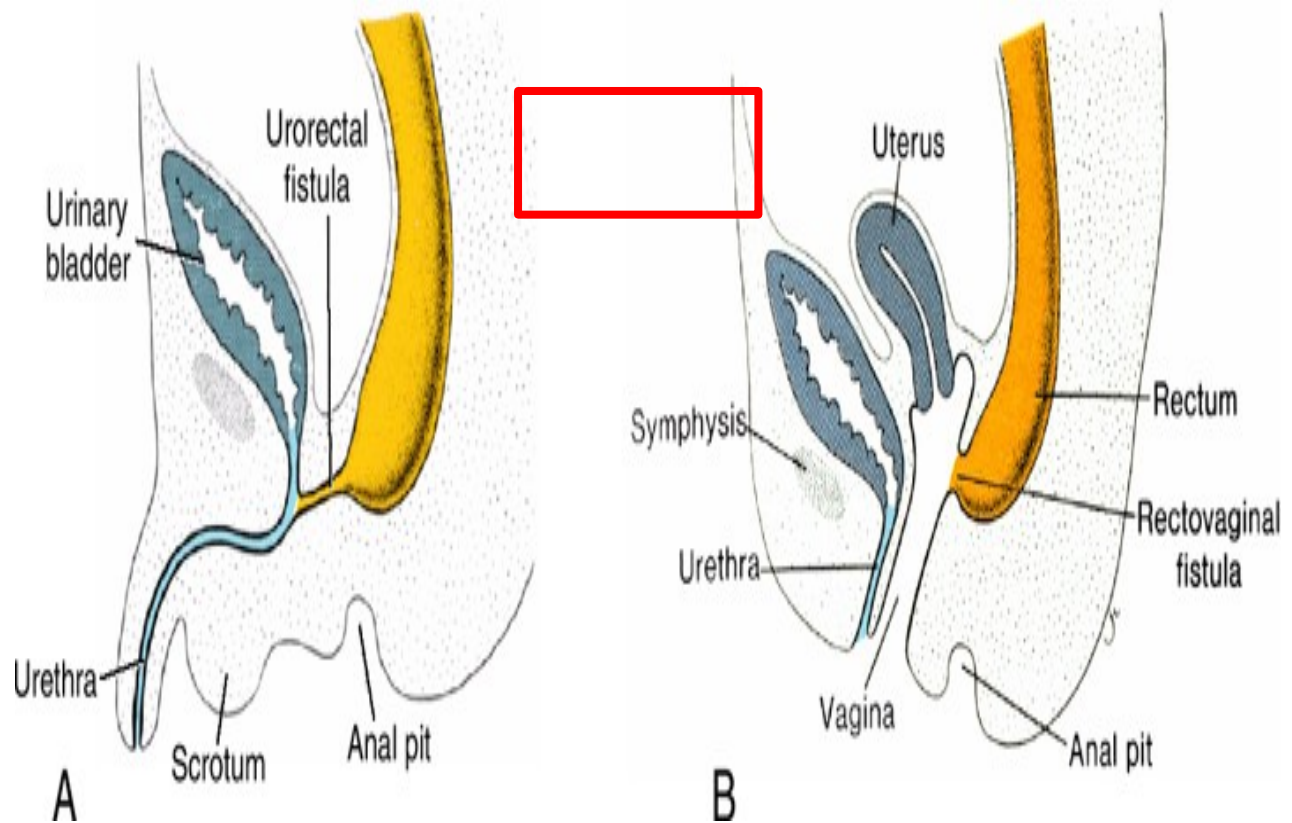
"Hourglass" bladder
(ureters may enter either
upper or lower segment)



**Rectourethral
fistula**



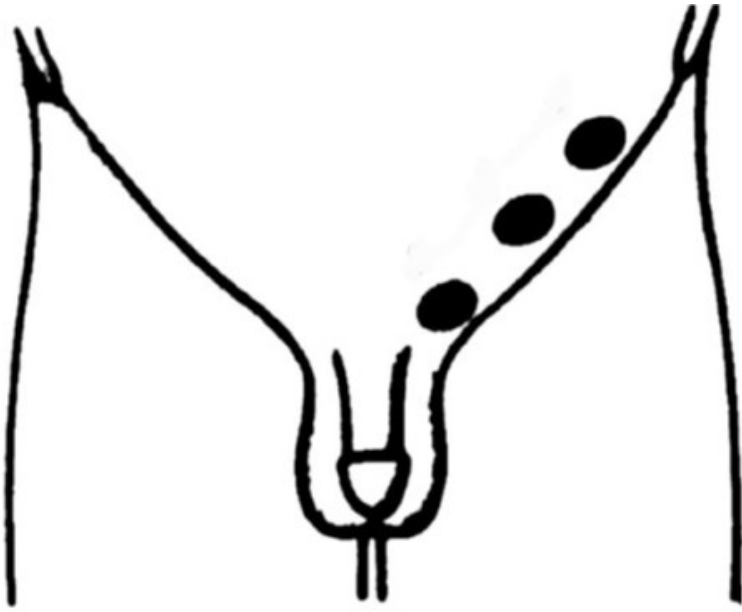
**Rectovesica
l fistula**



Uro-rectal fistula

Congenital Anomalies of the Genital system

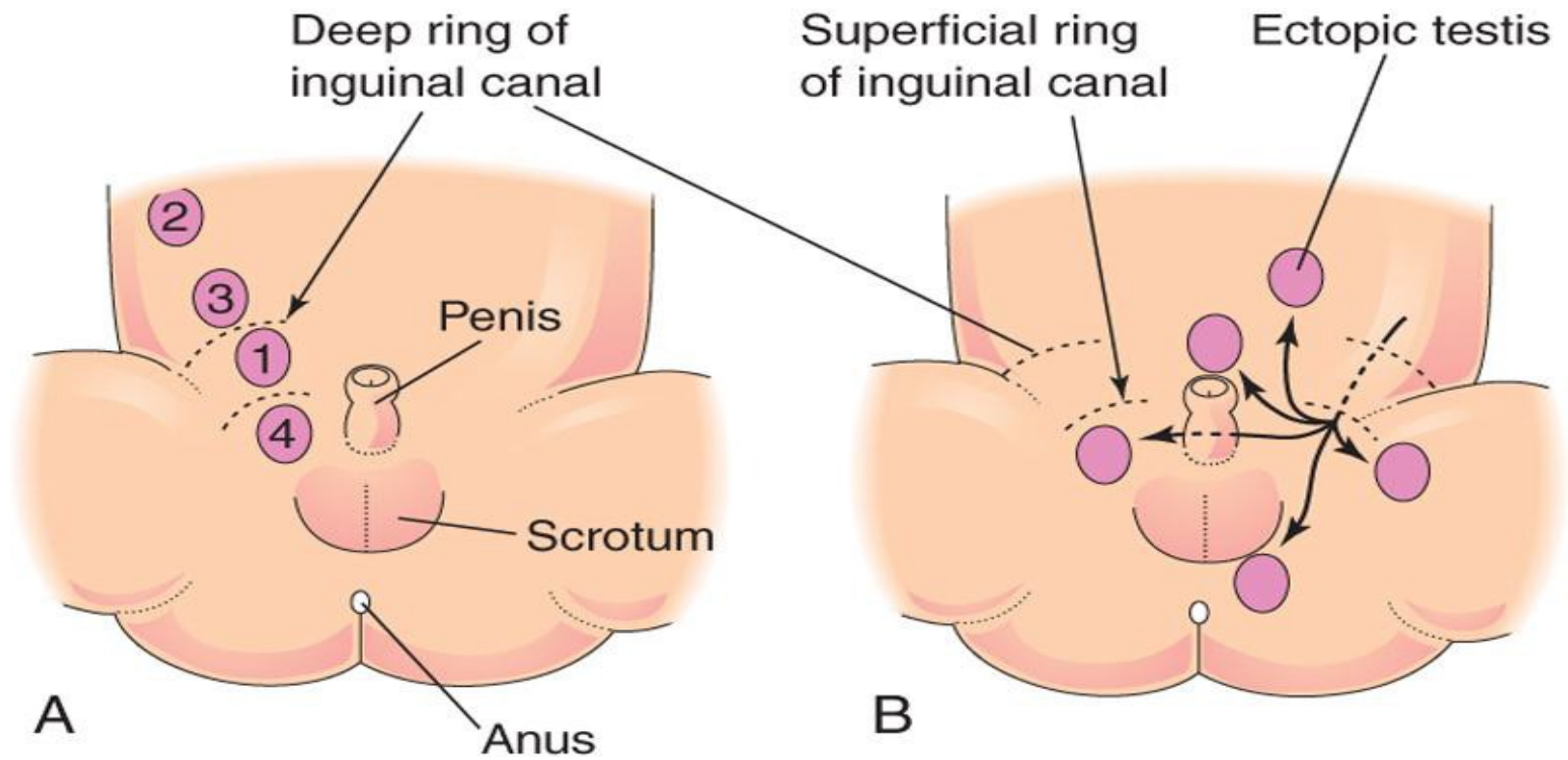
Anomalies of the Testicular Descend



**Undescended
testis**

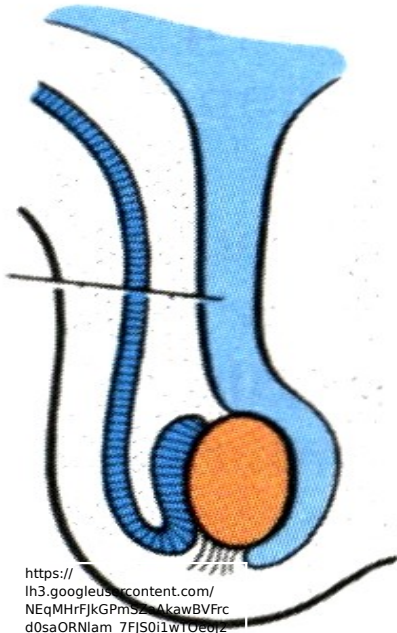


**Maldescen
d**



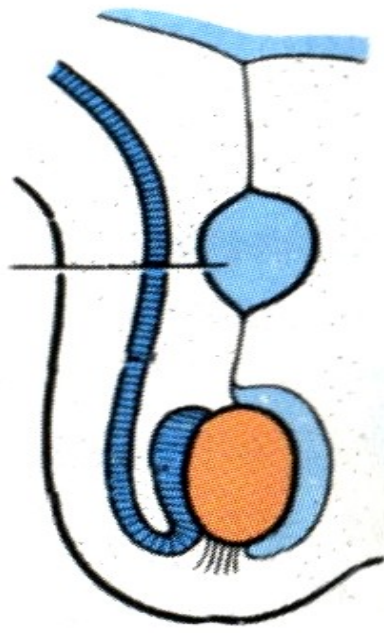
https://www.google.com/eg/search?hl=en-EG&tbs=simg:CAQSogJlU8-D7UAYjicalgILELCmpwgaYgpgCAMSKNoC2wKECici2ALIA5YI8wmFCM8JtzTgM_1w_1kjqbPv0_14D3oN-MzkToaMOKBCCkIL9ERI1BAWQ6bWSGsMotBsroYpmKhZw-jeiqvV2zQF7u_1SN3jq22YzFiqLCAEDAsQjq7-CBoKCgglARIE5Eud6wwLEj3twQkajgEKGoH2GihZ3jhbdqIIPYDCwojL20vMDJ2MG0yChsKB29jdG9wdXPapYj2AwwKCi9tLzAycTjyZGIGGgolbmF1dGlsdXPapYj2AwoKCC9tLzBwMjNfChwKcmFtbW9ub2IkZWHPapYj2AwoKCC9tLzBoeW4ChkKB2NhcnRvb27aoYi2AwoKCC9tLzAvMTVuDA&a=diagram&tbm=isch&sa=X&ved=2ahUKEwirsH3IroAhUx-voKHYNLD780wa4oAHoECAoOla

Anomalies of Processus Vaginalis

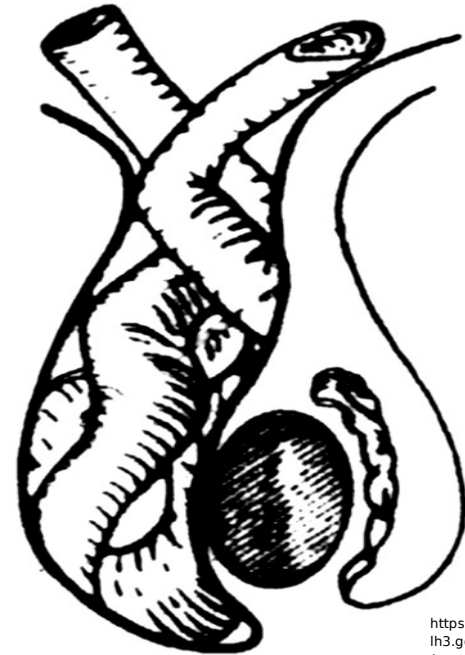


https://lh3.googleusercontent.com/NEqMhRfJkGpmsZAwBVfrcd0saORNIam_7FJS0i1wTOE6jzZ9jCde0BXMkVK7Gt6ukWQ=s85

Hydrocele



Encysted hydrocele of the cord



<https://lh3.googleusercontent.com/sH1CQAztWxaCiusvSQJOHfcBvahT0axmq4tWbQ7JjI74EMa9QDI4eWwa5znkKJ5nl>

Congenital Hernia

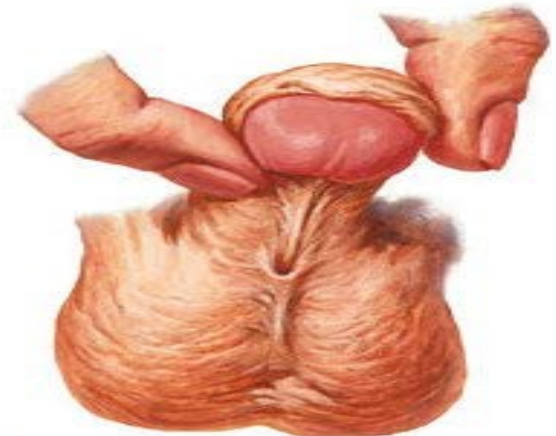
Hypospadias and Epispadias



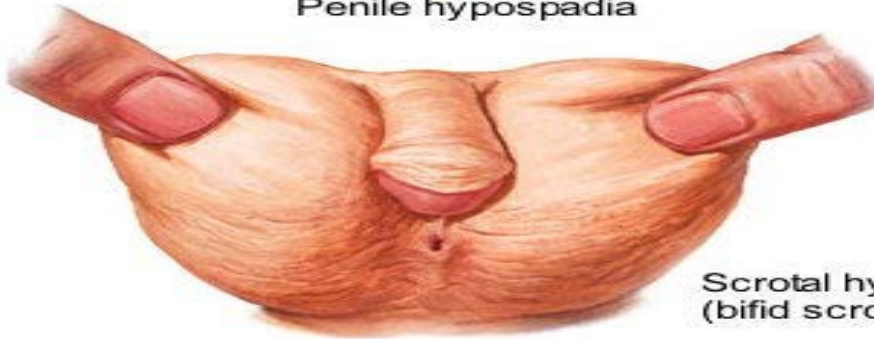
Glanular hypospadias



Penile hypospadias



Penoscrotal hypospadias
(with chordee)



Scrotal hypospadias
(bifid scrotum, chordee)

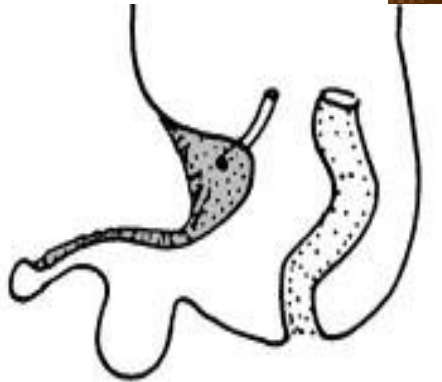


Penile epispadias



Complete epispadias

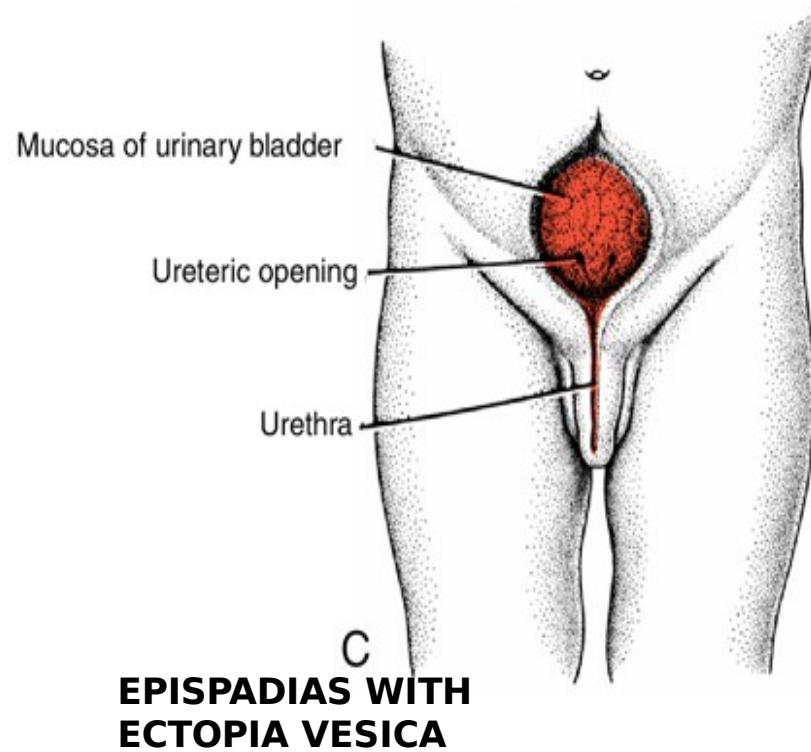
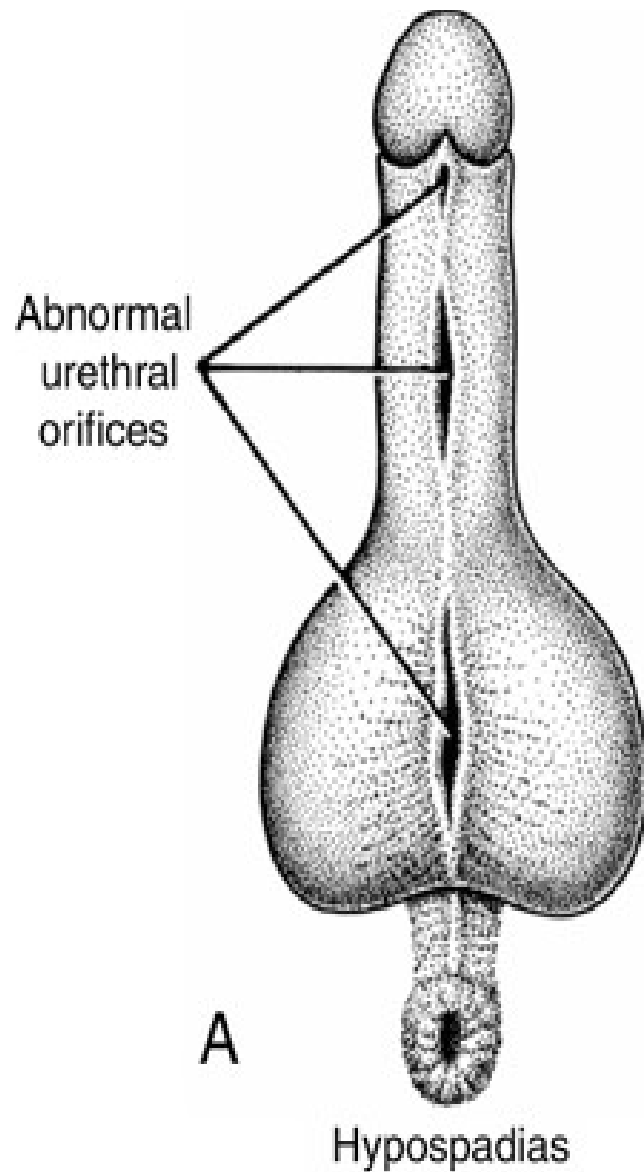
Ectopia Vesicae and Epispadias



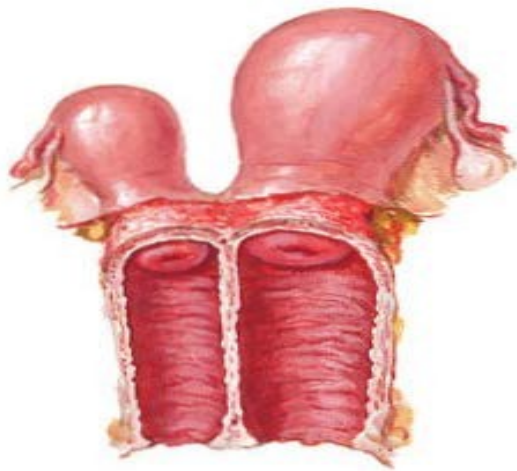
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https://lh3.googleusercontent.com/InvITxhWhaERcQJ-8IS_y2rWrxFoma2D4QdzfsR4EHFLzrXpnbCHI45e-



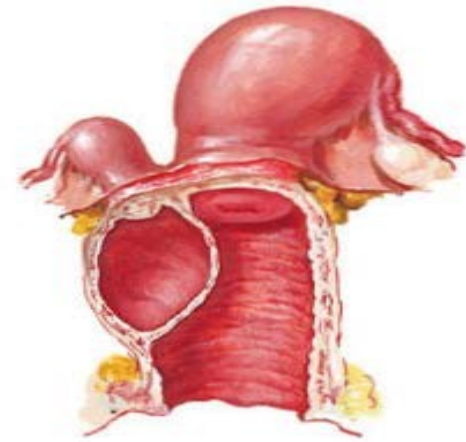
Anomalies of the Genital Ducts



Complete septum with double uterus and double vagina



Partial septum



Rudimentary second vagina without external opening, forming cyst



Bicornuate uterus with complete septum (double cervix)



Bicornuate uterus



Double uterus



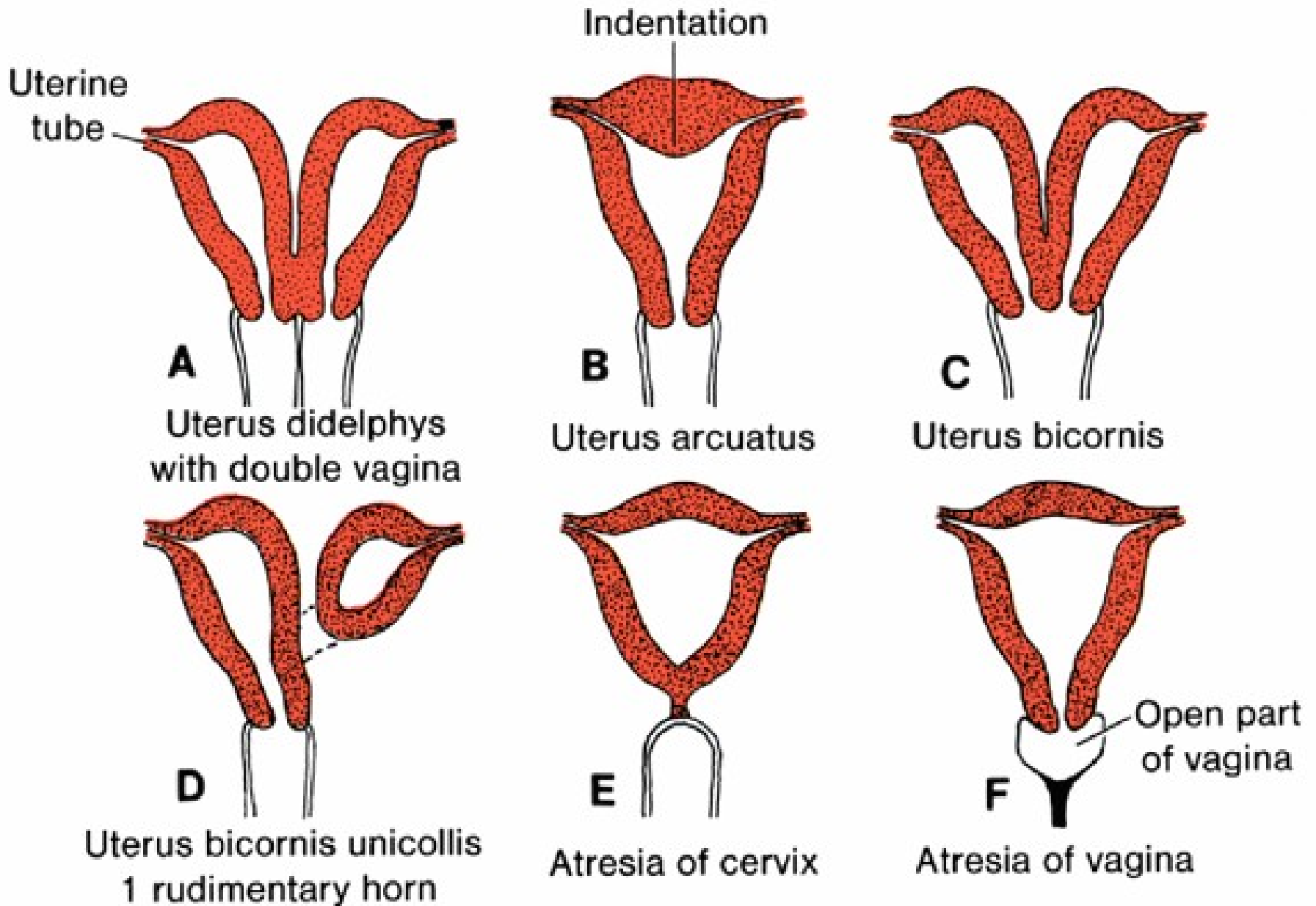
Septate uterus



Partial septum



Unicornuate uterus



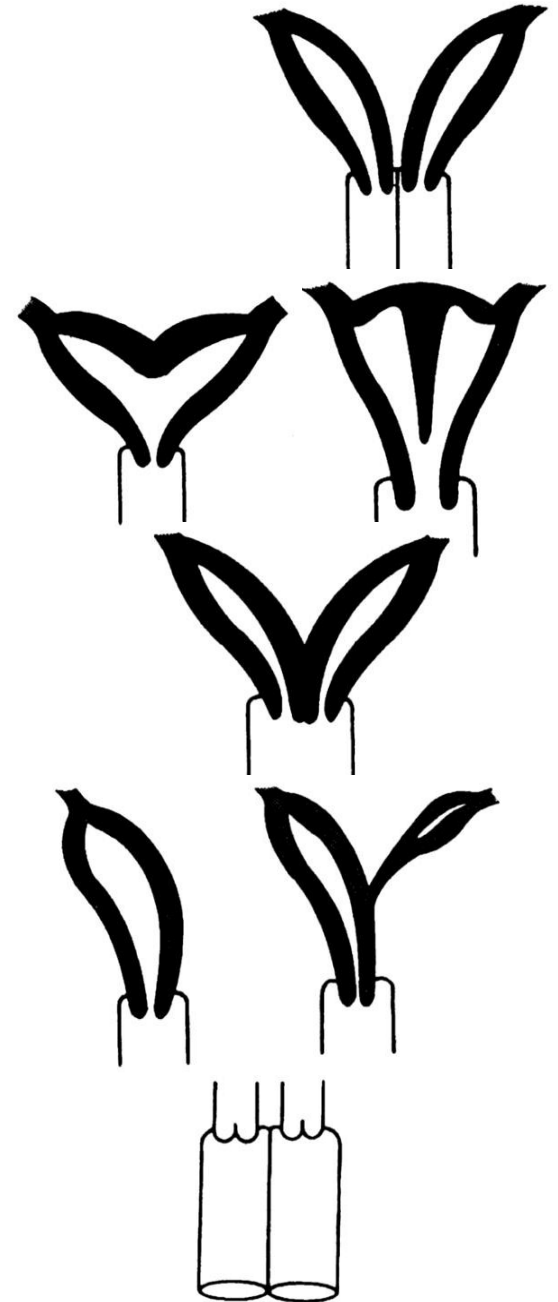
1- The uterus and vagina are double (uterus Didelphys)

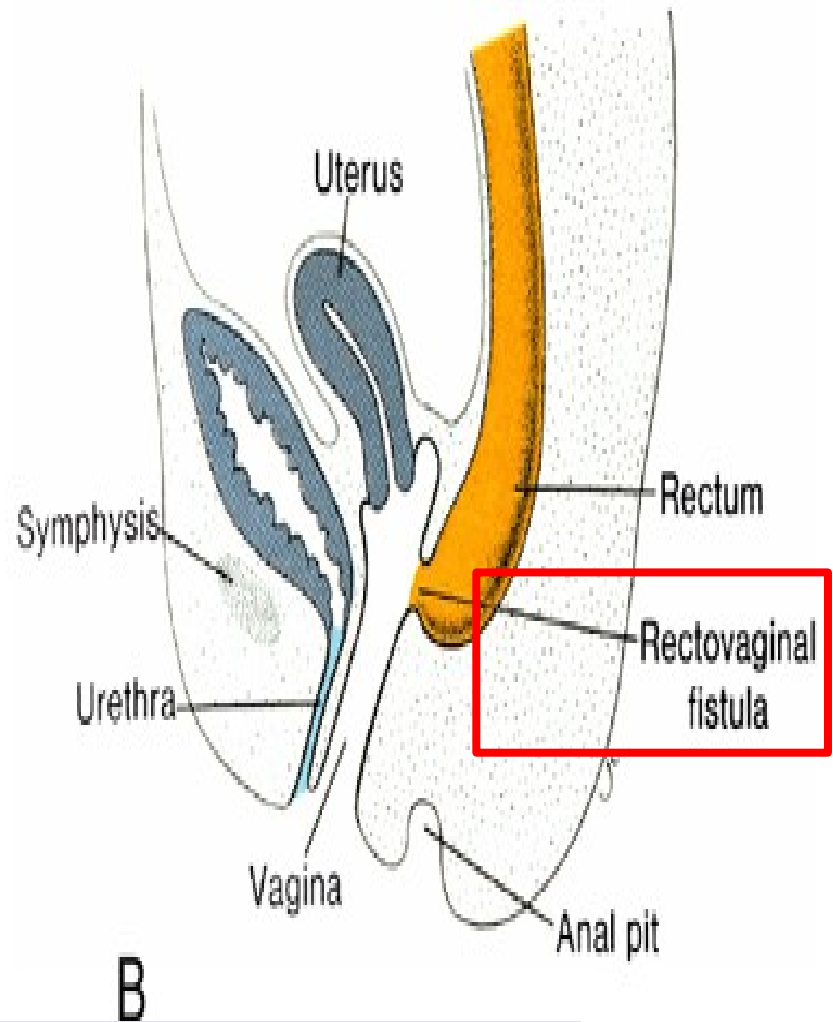
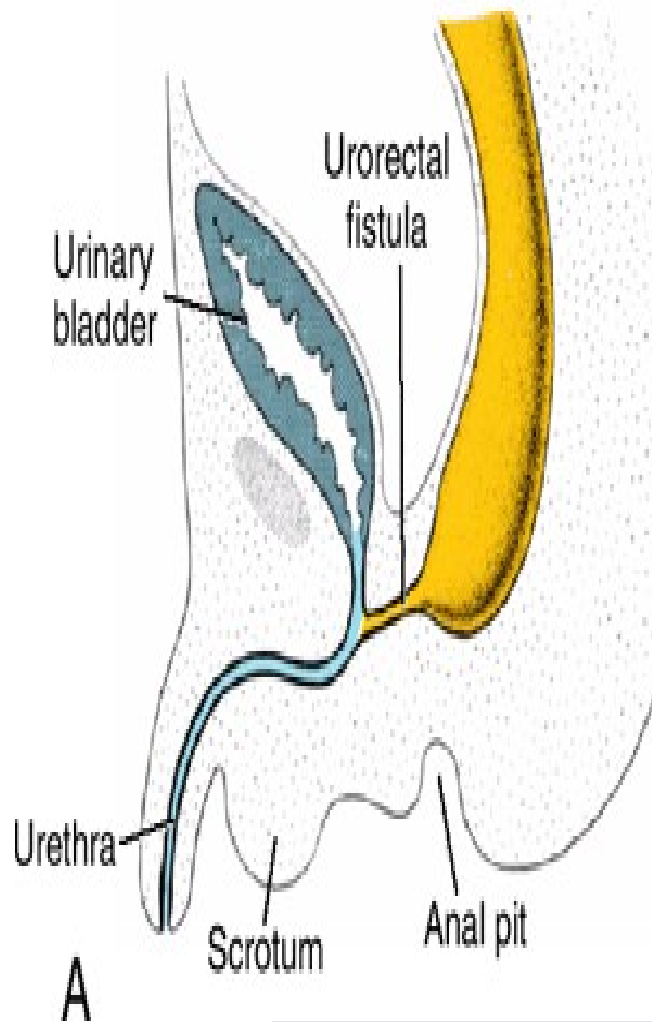
2- Uterus arcuatus

3- The uterus that has two horns entering a common vagina (uterus bicornis)

4- Atresia of one paramesonephric duct (uterus bicornis unicollis)

5- failure of fusion of the sinovaginal bulbs double vagina

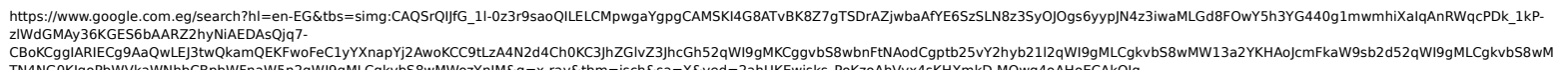


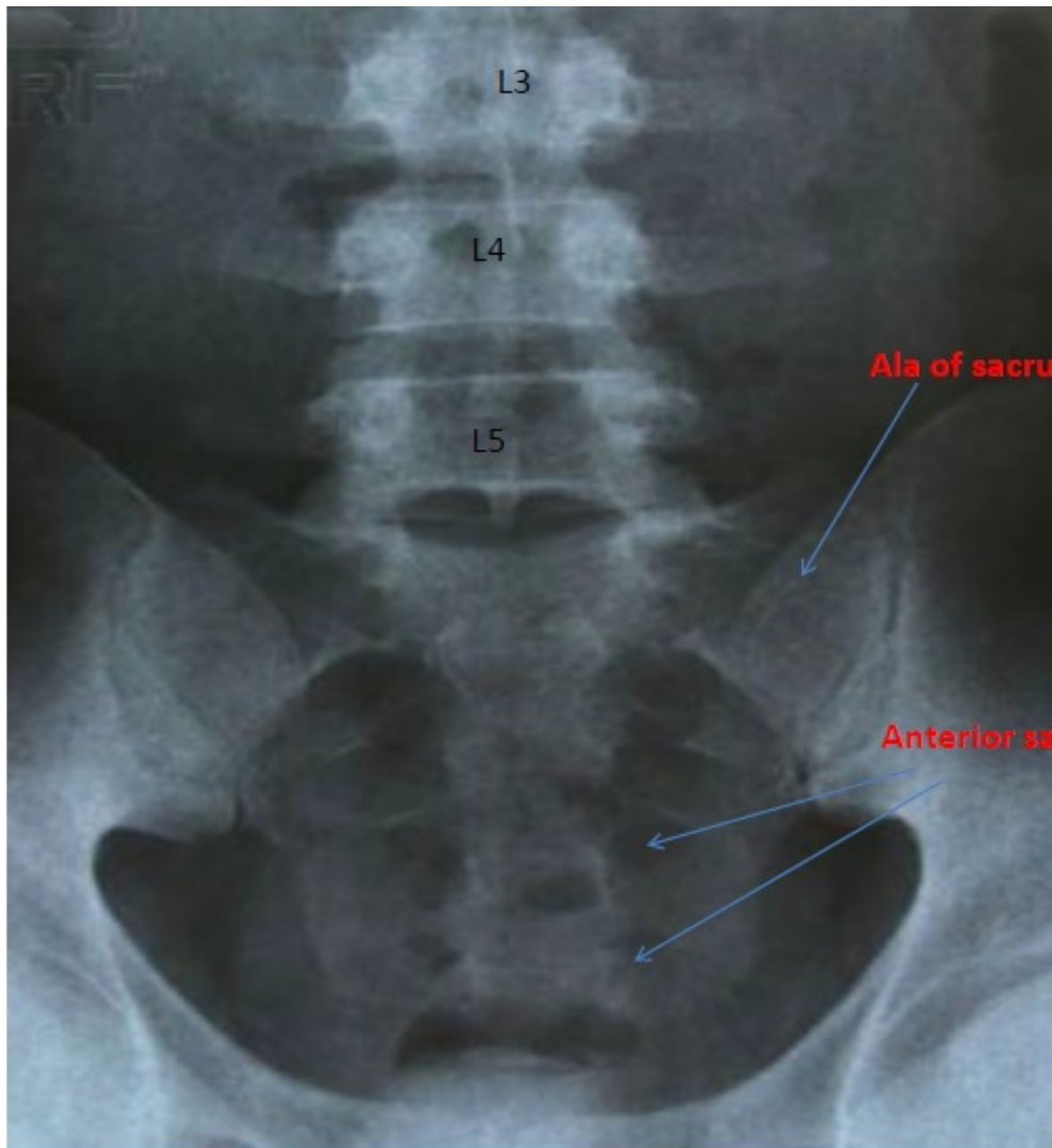


Recto-vaginal Fistula

**Imagin
g**

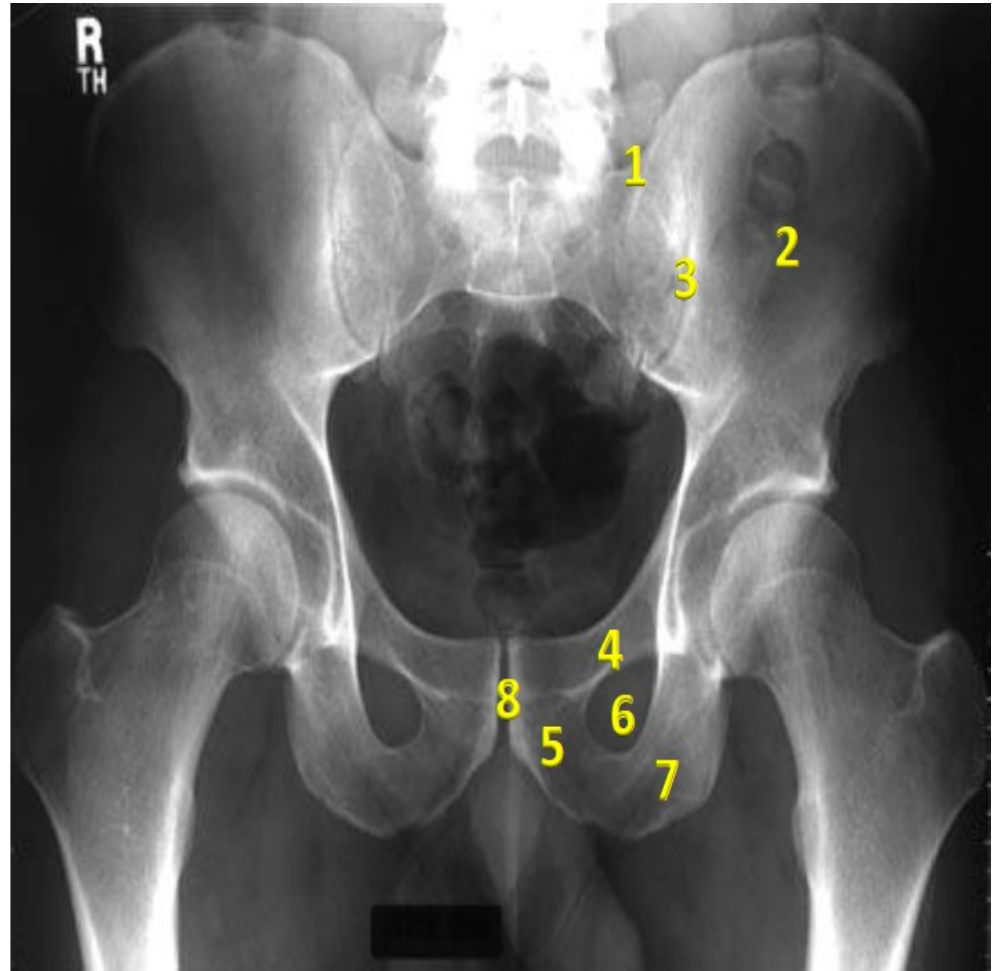
Imaging of the Pelvis



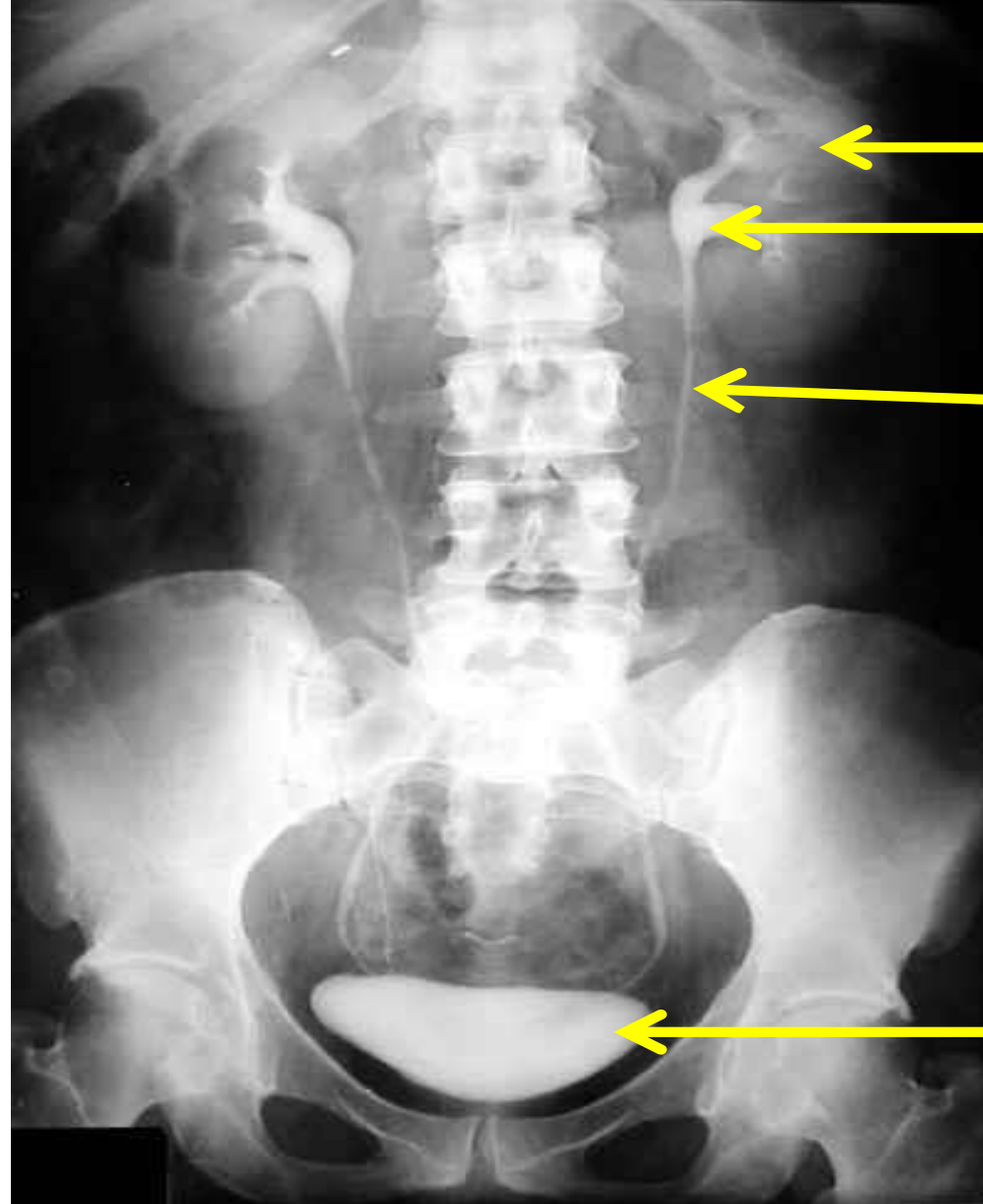


X-ray

1	Ala of sacrum
2	Ilium
3	Sacroiliac joint
4	Superior ramus of pubis
5	Inferior ramus of pubis
6	Obturator foramen
7	Ischial tuberosity
8	Symphysis pubis



Imaging of the Urinary System



Kidney

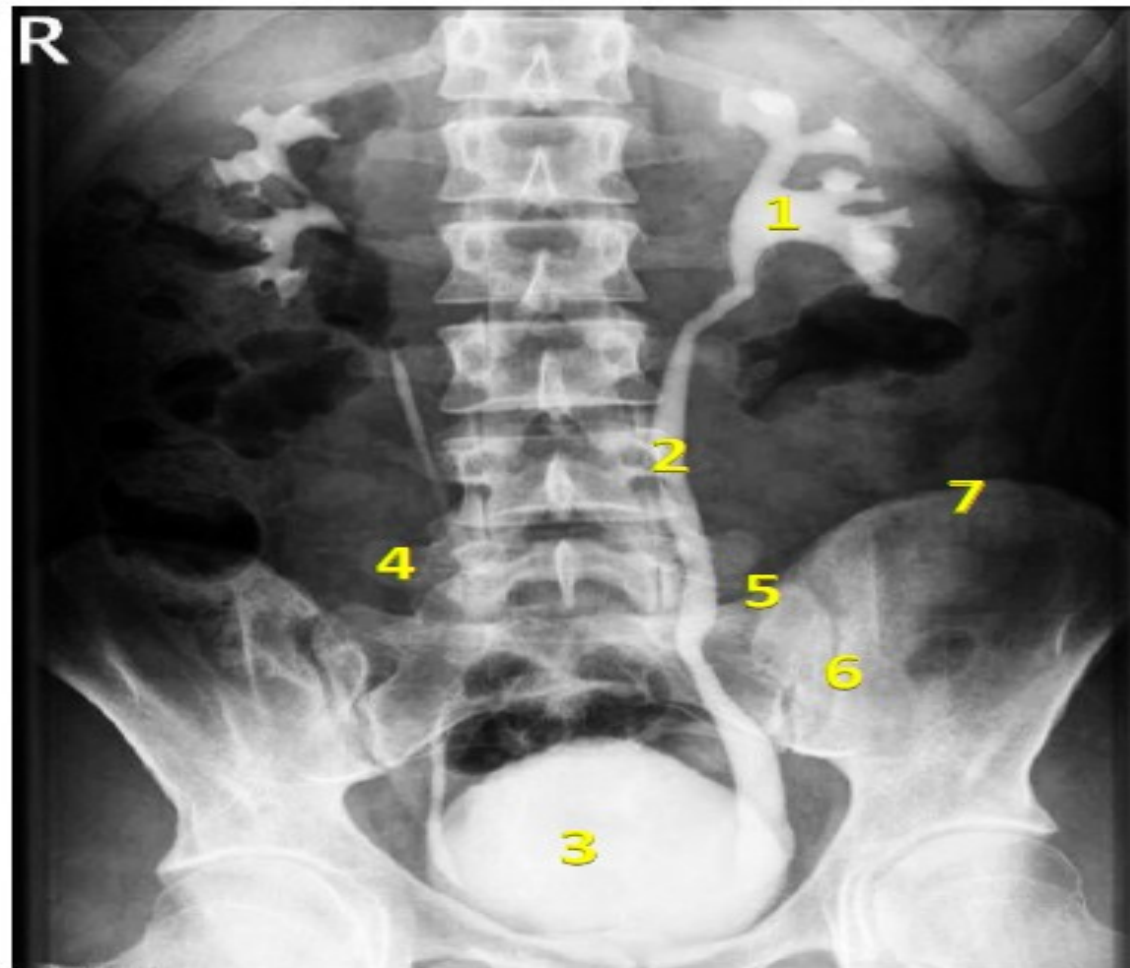
**Renal
pelvis**

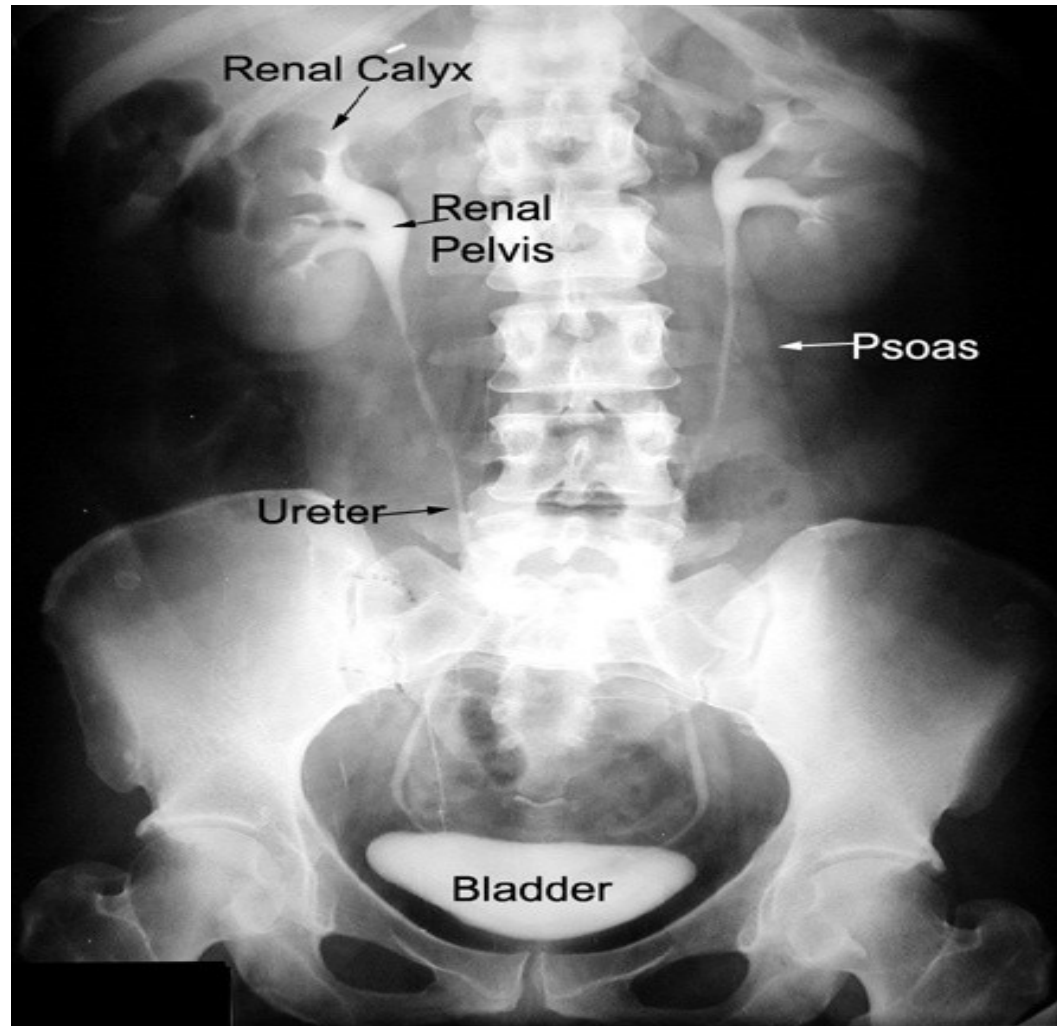
Ureter

**Urinary
Bladder**

Intravenous pyelography (IVP)

1	Renal pelvis
2	Ureter
3	Urinary bladder
4	Transverse processes
5	Ala of sacrum
6	Sacroiliac joint
7	Iliac crest





https://www.google.com.eg/search?hl=en-EG&tbs=simg:CAQStQlJFVj4vvXzjCEaqQlELCMpwgaYQpfCAMSJ-8E7gTwBK8ZjgbzBLAZ9gR52gGcJN4z0lzcLN0soCTpLL831D3fMxowLVrfsf3KPCAaeRZgnVXZXRRkuqIF7O5q_1ZWSSfn0ERye_1Nled3-hPESex9rGwXvrlAQMCxCORv4IGgokCAGBEgSNHYpWDA sQne3BCRqiAQodCgtyYWRp b2dyYXBodqlliPYDCgoIL20vMG5xbTQKFwoFeC1yYXNa pYj2AwoKCC9tLzA4N2d4Ch wKCXjhZGlvbG9nedqlliPYDC woJL20vMDEzeDRtCiYKE21l ZGJjYWwgcmlFkaW9ncmFw aHnapYj2AwsKCS9tLzBnc3Y 0cQoiCg9tZWRRpY2FslGltYW dpbmFapYj2AwsKCS9tLzAxa jNicgw&q=urinary+system +x+ray&tbm=isch&sa=X& ved=2ahUKEwjOwJib25roAh Uk_CoKHdydAokQwg4oAHO ECAaOla

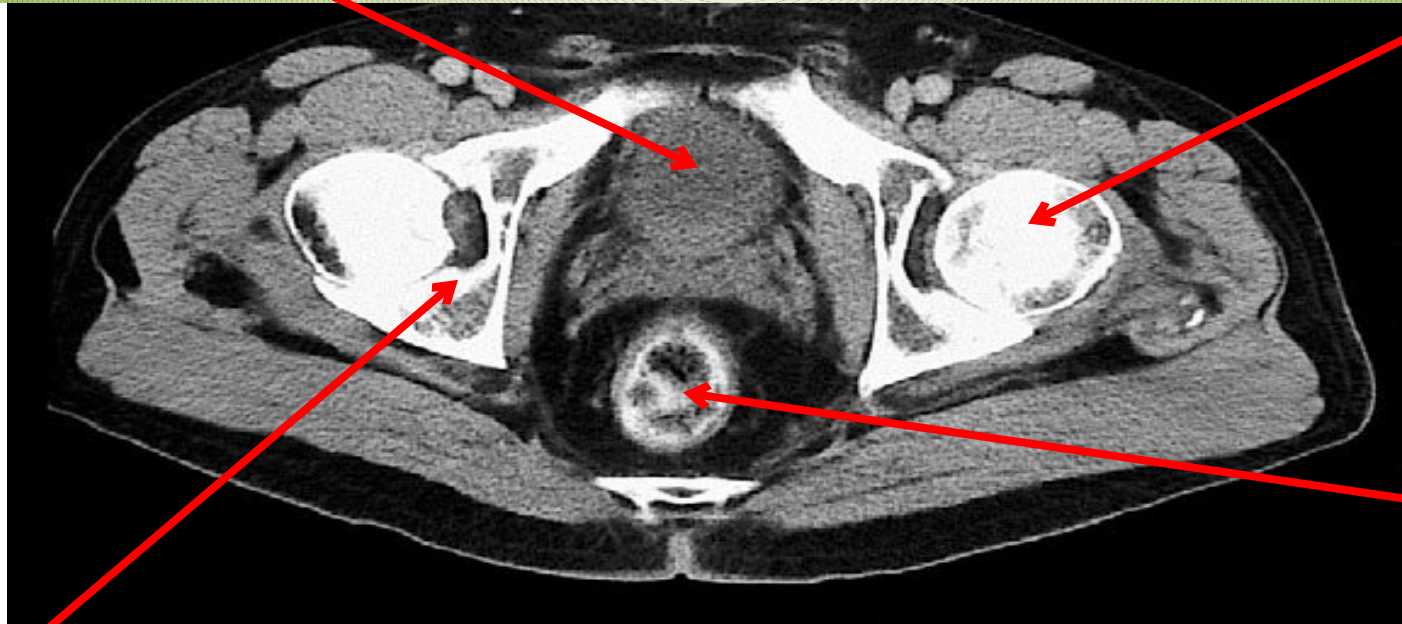
Pelvic CT scan

At The Level of S4 Vertebra

Urinary bladder

Urinary bladder

***Head of
Femur***



Rectum

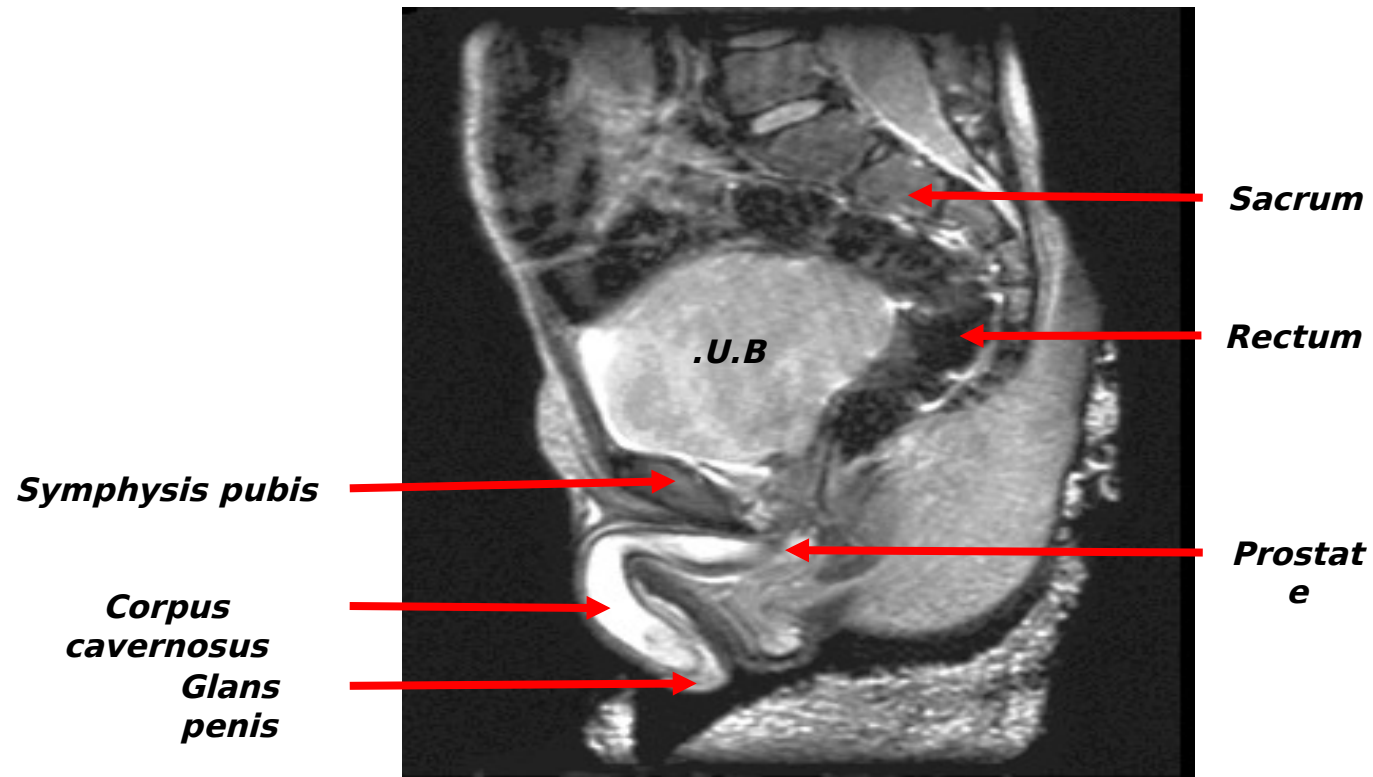
Acetabulum

https://lh3.googleusercontent.com/Td6ckKEH7iX_8Z-LcBv4dlzbTFbeanf5K8P79aK1Cre4R6vYa_nKXMtbiOH_mt-GclYO8a=s128

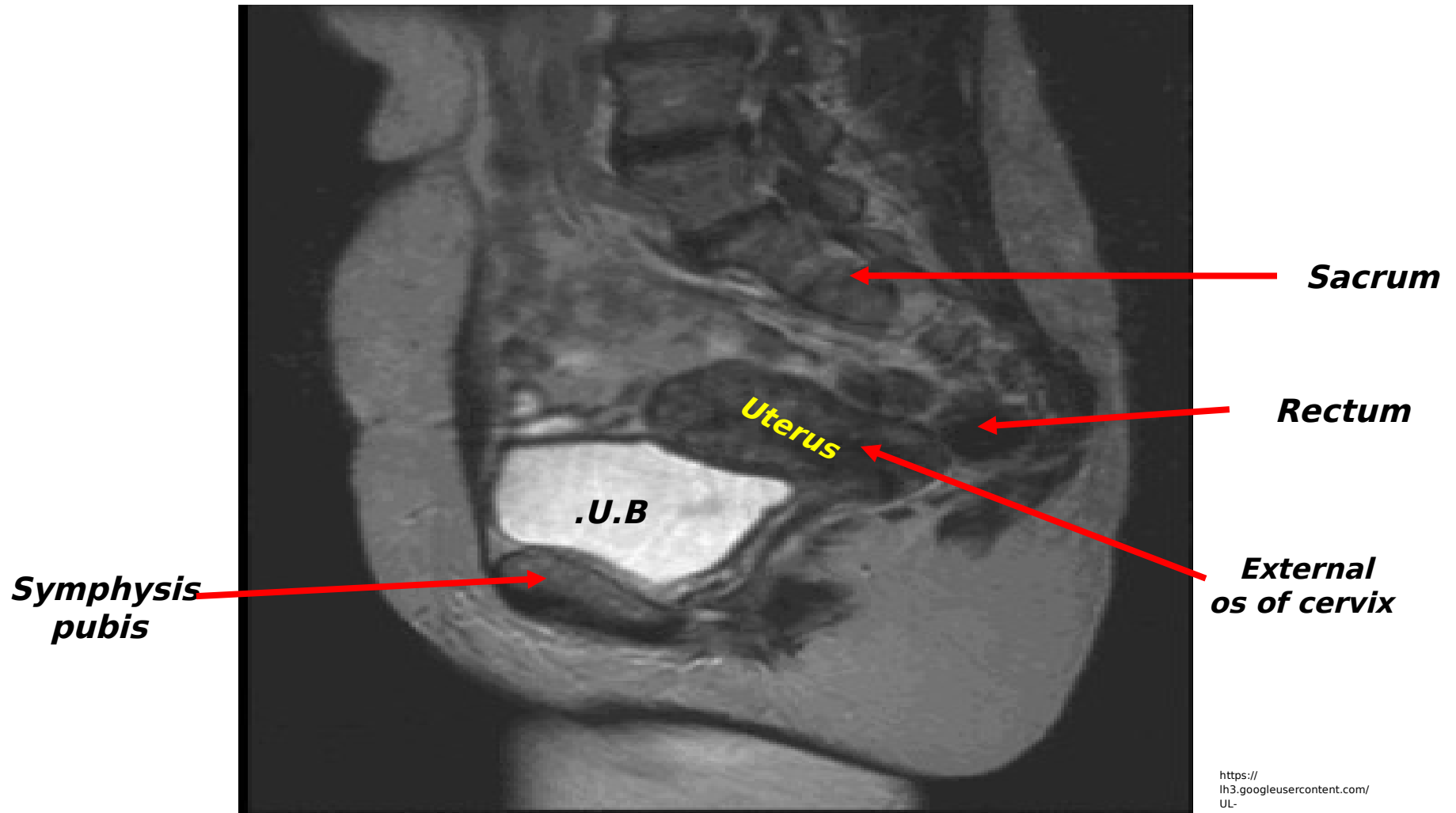
Imaging of the Genital System

Pelvic Scans: Sagittal MR Images

Median and paramedian sagittal MR images of male pelvis



https://lh3.googleusercontent.com/PEZA9FZQ5_alAqmZA8HAg1fjnnasc00nnJrqo79Gb0AUwAo-ihokCIUsT7vOVDMPFLWTTa=s151



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**Thank
You**